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SCOTT'S NEW METHOD OF THE NIGHT LETTER

(See page 98)

J. R

10/31/12

A RECORD

OF THE

Great Fire in Newcastle and Gateshead,

TO WHICH IS PREFIXED

A HISTORY OF NEWCASTLE,

INCLUDING ITS

ANTIQUITY, HISTORICAL EVENTS, AND GENERAL DESCRIPTION,

(Forming a Guide Book to the Town;)

ALSO

AS INTRODUCTORY TO THE GREAT CALAMITY, AN ACCOUNT OF

THE DISASTROUS EFFECTS OF

CHOLERA, PESTILENCE, FLOOD, AND FIRE,

WHICH HAVE OCCURRED

IN THE HISTORIES OF NEWCASTLE AND GATESHEAD.



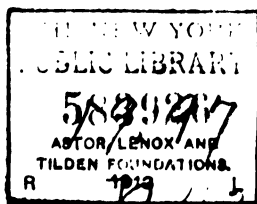
LONDON :

GEORGE ROUTLEDGE & Co., Farringdon Street ;

GATESHEAD : William Barkas ; NEWCASTLE : T. P. Barkas ; MANCHESTER : Fletcher
& Tubbs ; GLASGOW : George Gallie ; EDINBURGH : Oliver & Boyd.

1855. ✓

W. B. S.



ENTERED AT STATIONER'S HALL.

Printed by WILLIAM BARKAS, High Street, Gateshead
High Friar Street, Newcastle-on-Tyne.

DEDICATION.

TO THE
RIGHT WORSHIPFUL THE MAYOR OF NEWCASTLE,
RALPH DODDS, ESQ.,
TO
THE WORSHIPFUL THE MAYOR OF GATESHEAD,
DAVID HAGGIE, ESQ.,
AND TO THE GENTLEMEN, MILITARY, FIREMEN,
AND OTHERS,
WHO SO NOBLY, ARDUOUSLY, AND EFFICIENTLY
LABORED TO EXTINGUISH THE GREAT FIRE,
THIS RECORD
IS RESPECTFULLY DEDICATED.

Newcastle-on-Tyne, 1854.

4187



P R E F A C E .

As a narrative of this GREAT FIRE is likely to interest, long after its dire and direct effects have passed away, and as it may circulate far beyond the immediate locality of its transactions, it has been thought desirable to prefix a brief history of the town itself, which, from the late visitations of Cholera and Fire, has been the subject of so much observation. In the compilation of the compendium of its history, the local records have been closely collated; and in the description of the fire, the painstaking assiduity of the periodic press has left little more to do than the exercise of a judicious care in the selection of the materials from their store, so that a consecutive and interesting narrative should be presented and preserved.

At the same time, the arrangement being so totally diverse from the newspaper reports, and almost entirely re-written or re-cast, it has precluded

the possibility of particularizing any ; but we do most freely acknowledge our great indebtedness to all. Indeed, the great efforts of the Newspaper propriety, in the issuing of so many successive editions during the continuance of the fire, and the diligence and talent of their literary staff, laid the public under considerable obligation to them,—to which sentiment we most sincerely subscribe.

J. R.

Newcastle-on-Tyne, 1855.

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HISTORY OF NEWCASTLE, &c.

Antiquity of the Town.

THE ancient town of Newcastle-upon-Tyne traces its origin to the earliest times of British history. As it is generally acknowledged that the first inhabitants of Britain were a maritime people, there can be little doubt but that its broad and expansive river attracted betimes the attention of the primitive colonists, and that the banks of the Tyne at an early period became the busy locations of industry.

The idea that the Ancient Britons, prior to the time of the Roman invasion, were rude barbarians, is now generally repudiated; and if other evidence were wanting, the truth may be gathered from the partial history furnished by the invaders themselves. From the few facts left upon record, we are led to believe that at the time of Cæsar's expedition into Britain, the people had become a great nation; that, though the persons of the common people were ingeniously tatooed and usually clothed with skins, yet the trews, vest, and mantle, of the higher ranks were manufactured with great labor, and variegated with considerable skill. That they then had settled institutions and laws, and were distinguished by an

earnest love of liberty, in the defence of which, the highest degree of valor and self-devotion were on all occasions manifested. They handled the sword, the spear, and the battle-axe, with great dexterity; and their war-chariots were formidable even to the disciplined legions of Rome. So versed were they in military tactics, as to meet the disciplined armies which had borne the Roman banner over the most famed and civilized portions of the world, on such equal terms as to render victory at every encounter little better than a defeat: and by no people, in any age, was every inch of country contested with more bravery, nor was conquest ever more dearly purchased, than in the subjugation of the Ancient Britons.

Stronger evidence of these facts cannot be offered or desired than the justly celebrated Roman Wall which crossed the country from sea to sea,* and which, it is said, required ten thousand troops for its defence, so that the strongest division of the Roman Army in England was constantly in garrison here to oppose the bold and daring attacks of the brave and independent Britons. Neither would it be fair, as has been observed, to place this vast line of military defence in the foreground of the picture, and to dazzle the imagination with a display of the many wonders that once appertained to this military work

* It is generally admitted that Julius Caesar, in order to secure his conquests, built a chain of Forts from the Tyne to the Solway Frith.

of antiquity, without bestowing a thought upon the thousands and tens of thousands of brave men against whose vindictive blows for the loss of their liberties and homes, it was designed to form such an impregnable barrier. The truth must therefore be admitted, that a people who required so much power to oppose, and so much skill to out-general them, must not only have been mighty in numbers, but far advanced in the arts of civilization, as well as organized and disciplined in martial power.

It is understood that the Ancient Britons generally constructed their fastnesses or towns on high grounds or precipitate places ; and, in all probability, the unsettled state and warfare of the times rendered such course a necessary precaution. Considering the general advantages to be derived from the river communication, there can be little doubt but that the summit of the lofty elevation which rises abruptly from the north end of the Tyne Bridge presented many eligible considerations for the establishment of a military station and town ; and the conjecture that this was a British place of defence in those early times, is strengthened by the circumstance of the Romans having afterwards formed a station on this very spot ; the Romans it is well known seldom neglecting to occupy the fortresses of the natives.

Having thus briefly adverted to the evidence generally adduced in confirmation of the fact, that Newcastle was a place of some importance among the ancient Britons, long prior to the invasion of

Julius Cæsar, we proceed to observe, that there is no doubt whatever of its being so, during the time of the Roman power. That Newcastle had been chosen as the site of a Roman fort by Agricola, is highly probable, because Hadrian the Roman Emperor commenced his grand barrier here, which extended for eighty miles, commencing at *Pons Ælii*, and ending at Solway Frith, clearly considering it a post of importance. Here commenced one of the great military roads of the Romans, which passing Gateshead, proceeded south by Chester-le-Street. Here also the Emperor built a bridge from which circumstance the station was called *Pons Ælii*, after the Emperor, who was of the Ælian family. During his reign two medals were struck, one bearing a bridge with five arches, and the other one with seven. As the Ælian bridge at Rome has five arches, it has been properly inferred that the other medal was intended to commemorate the building of the bridge over the Tyne. Nevertheless, it is certain that the bridge of Newcastle was of Roman origin, for in clearing away the piers of the old bridge after the great flood in 1771, one of Hadrian's coins was found, as well as the coins of anterior Emperors. Those of a subsequent date are supposed to have been deposited there in some later repairs.

About one hundred years later than the time of Hadrian the Roman Emperor, Severus erected a strong stone Wall along the line of the earthen ramparts erected by Hadrian, which being broken

down in many places was rebuilt by the Romans and Britons. Vestiges of this stupenduous work are still visible at Newcastle, where it formed part of the town's wall. The fact that Newcastle was a Roman station is further confirmed by the remnants of antiquity that were discovered on making the excavations for the foundation of the New County Courts in 1810. The identity, therefore, of a place bearing a modern name, and having become transformed from a military station to a seat of commerce, can hardly be proved on more satisfactory testimony than that which is here brought forward, to show that *Pons Ælii* and *Newcastle* are the same place under different designations. And while these circumstances attest the high antiquity of Newcastle, they also point it out as one of the chosen spots where in England those arts were first taught which have diffused the blessings of civilization throughout the world.

After the decline of the Roman power, and their final withdrawment from the kingdom, (being about four hundred and seventy years from the invasion of Julius Cæsar,) the Picts and the Scots uniting together attacked, with success, the northern wall, which the Romans had built to keep off their incursions. Having thus opened to themselves a passage, they ravaged the whole country with impunity, while the Britons were obliged to seek a precarious shelter in their woods and mountains. In this deplorable and enfeebled state they had recourse to the aid of

the Saxons, a brave people who had rendered themselves formidable by their strength and valor,—glad at the fortuitous circumstances which had led to their being invited to a country upon which they had long formed designs. In consequence, thereof, fifteen hundred men, under the command of Hengist and Horsa, two brothers, landed on the isle of Thanet, and being joined by the British forces, they marched against the Picts and Scots and gained a complete victory over them. The Saxons, however, like all other invaders, being made sensible of the fertility of the country to which they had come, and remembering the barrenness of that which they had left behind, invited over great numbers of their countrymen; and accordingly they shortly received an addition of five thousand men, who soon made a permanent establishment in the island. Other tribes, allured by the success of their countrymen, came over in great numbers, under different leaders, and having ultimately over-run and subdued the whole country, established eventually the Saxon Heptarchy.

The seventh and last kingdom which the Saxons established was that of Northumberland, one of the most powerful and extensive of them all, and the *Pons Ælii* of the Romans, appears in the records of history, under the new appellation of *Ad Murum** (the wall,) and became the royal residence

* This is the commonly received version, but we understand disputed upon what is esteemed good authority, by "the best informed antiquaries."

of the Kings of Northumberland. The strength of its fortifications, its vicinity to the coast, its secure harbour, and its bridge, would probably render it an important place to the warlike Saxons, having the great wall on the north side, and the river Tyne on the south.

After the Anglo-Saxons had secured their conquests, and were exhausted by internal warfare, their character underwent great modifications, their fierceness was mellowed into firmness, and their predatory habits into patient industry. This mental and moral revolution was accelerated and completed in Northumberland by the introduction of Christianity, under the auspices of the celebrated King Edwin, who was converted by the preaching of Paulinus, a missionary, and of his wife Edilberga, who was a christian previous to her marriage with Edwin. The happiest effects are asserted to have followed the conversion of the Northumbrians. "So great," it is said, "was the peace in the kingdom of Edwin, that "a woman might have gone from one town to another "without grief or annoyance ; and for the refreshing "of wayfarers Edwin ordained, at clear wells, cups or "dishes of brass or iron, to be fastened to posts by "the side of them, and no man was so hardy as to "take away those cups, he kept so good justice."

In consequence of the general diffusion of christianity, this place after having been for some time called *Ad Murum*, acquired the designation of *Monkchester*, which is usually interpreted "the fortified

residence of the Monks." It probably attained this name from the neighbouring Monks retiring to it for protection in times of danger, and from such gatherings may have been considered a place of extraordinary sanctity; it is understood, that during the heptarchy, it was held in great esteem, and that its successive kings adorned it with many monastic institutions.

From the time when Northumberland ceased to be an independent kingdom, till the reign of William the Conqueror, *Monkchester* remained in possession of the Earls of Northumberland, and was probably one of their principal places of residence, but Edgar Etheling, heir to the crown of England, and Malcolm, king of Scotland, and some Danish auxiliaries having invaded Northumberland took possession of *Monkchester*, from whence they marched out and joined battle with William, on Gateshead Fell. The courageous Norman having proved victorious, he entered the town and laid it waste, almost leveling it to the ground in order to prevent it becoming in future an asylum for his enemies.

William afterwards finding it necessary to strengthen his position in the North, and to oppose those sudden insurrectionary movements to which the Scots were so much addicted, commissioned his eldest son Robert Curthose, to conduct an expedition to Scotland against King Malcolm; and having marched his army a considerable way northward, he turned back to Newcastle, where he remained for

some time stationed, to be in readiness if any hostile demonstrations needed to be suppressed. And these circumstances rather favour the opinion that this Prince was authorised by his father to construct the present Castle, in order to secure at all times the military pass of the Tyne. He is said to have erected it on the site of the old Roman fortress, *Pons Ælii*, whose venerable walls had braved the assaults of eight hundred years. From the building of this NEW CASTLE, the town derived the name by which it is now distinguished.—It is supposed to have been erected about the year 1080.



The walls of the Castle enclosed an area of more than three acres. The Keep or great Tower, was strengthened on the south and west sides with a

second wall, in which there was one large gate and two posterns. The entrance into the Keep is by a flight of steps on the outside to the second story; a circular staircase in the south-east corner leads to the great hall, and below it to the dungeon, a ground-floor apartment.*

It is generally understood, that during the reign of William the II., the town was enclosed by a strong wall which was twelve feet high on the inside, and eight feet thick; on the outside its height in many parts exceeded twenty feet to the top of the battlements. The gates in these walls were Bridgegate, Closegate, Posterngate, Westgate, Newgate, Pilgrim-street gate, and Pandongate. The gates were also embattled and remarkable for their strength; and the intervening lines were commanded by strong semi-circular towers, each comprising an upper and lower apartment with vaulted roofs. Between these again were generally two watch towers, provided with projecting parapets, between which missiles could be showered on the heads of assailants. These things are referred to, in order to show the importance of the place some

* Other historians allege, that the Castle was built by William Rufus, who had been sent against the insurgents under the Duke of Northumberland, then in possession of Prudhoe Castle; the siege of which fortress he is said to have put off till the ensuing Spring; and his troops having garrisoned Newcastle during the winter, he remarked, that if we cannot take the *Old* Castle, we will build a *New* Castle; on which occasion the name of the town was changed from Monkchester, to that by which it is now called.

hundreds of years ago, although from the entirely altered circumstances of the times these great masses of fortifications have been removed, and the total character of the town and pursuits of the people so changed, that from being a mere military garrison and stronghold, it now derives its importance from its manufacturing skill, commercial enterprise, and trading industry.

William the II. constituted it a free borough, and his successors conferred upon it, many privileges and immunities.

Historical Events.

It is not compatible with our design, to pursue a consecutive course of local history; having thus briefly adverted to the early records connected with the antiquity of the town, and the circumstances which led to its present designation, we must limit our remarks to a few of the more prominent historical events, and to the general features which distinguished the town.

The Castle was scarcely completed when Mowbray, Earl of Northumberland, raised the standard of rebellion against William Rufus. The King immediately marched against the Castle and took it after a short siege. The Earl was afterwards taken prisoner at Tynemouth, and condemned to perpetual imprisonment. After the decease of Henry I., king

David of Scotland, invaded England, and took up his head quarters at Newcastle, which he afterward held by treaty with King Stephen, for sixteen years, when it was restored to Henry II.

In the year 1173, William the Lion, King of Scotland, joined in a confederacy against Henry II., and entered England at the head of an undisciplined and disorderly army of 80,000 men. The invaders penetrated to the Tyne, marking their route by the most horrid devastation; but, being repulsed at Prudhoe Castle, he fell back and laid siege to Alnwick. Ralph de Glanville, sheriff of Yorkshire, and other patriotic barons, with about 400 knights, entered Newcastle, and after taking refreshment, this chosen band by a rapid march arrived in the morning under the cover of a mist, near the Scottish camp, where the King with a troop of horsemen were exercising in feats of chivalry, whilst most of his troops were plundering the country in scattered parties. When the Scottish king first perceived the English, he mistook them for part of his own men, but, on seeing their banner, he struck his shield with his lance, and rode forward to encounter them, exclaiming, "now let us prove who is the truest knight." His horse was killed at the first shock, and himself thrown to the ground and made prisoner; and his attendants immediately threw down their arms. Glanville, to make sure of his royal capture, returned to Newcastle the same evening. After being confined for some time in the Castle at Richmond,

on resigning the ancient independency of his Crown, he was set at liberty. But, when William and his guards on their return reached the Tyne Bridge, they were vigorously attacked by the townsmen of Newcastle, a dreadful encounter took place, and several esquires belonging to the royal escort were slain. This vengeful act evidently arose from the exasperation felt by the inhabitants, at witnessing the liberation of an enemy whom they had good reason both to hate and to fear. The complete failure of this enterprise first gave England a decided ascendancy over Scotland.

In 1162, Henry II., confirmed to the townsmen of Newcastle their estates, and exempted them from tolls and duties, this is the first hint of a grant of this nature to the town of Newcastle, and in 1164, Hugh Pudsey, bishop of Durham, granted the same liberties to the Burgesses of Gateshead, as were enjoyed by the Burgesses of Newcastle. The reign of King John, was a period full of incidents of which Newcastle was almost the constant scene. He made it his chief place of residence for a considerable part of his reign. He strengthened its fortifications, and conferred on it other special marks of his favor.

Prior to 1251, the town had been governed by bailiffs, but from this time up to 1400, it was governed, by charter of Henry III., by a mayor and four bailiffs, who were annually chosen as magistrates. He also granted to the Burgesses,

the power of electing fit and proper persons to fill the important office of Coroners.

In 1292, John Baliol, King of Scotland, did homage for his Crown to Edward I., in the palace of the castle, at Newcastle; the ceremony was conducted with great solemnity in the presence of a number of illustrious personages of both nations. In 1299, William Wallace, the champion of Scotland, wasted Northumberland, as far as the walls of Newcastle-upon-Tyne, which he afterwards assailed to no purpose, having been as often repulsed by the valor of its inhabitants. In the same year, PANDON, anciently a distinct town from Newcastle, was united thereto by charter of Edward I. The kings of Northumberland are said to have had one of their palaces in Pandon.

On three occasions the town was visited by Edward II. On the last of them, 1314, it had his presence during the assembling of his army at Berwick, of 60,000 horse, and 52,000 foot. The decisive battle of Bannockburn followed, which secured the independence of Scotland. In the following year, in another move of the tremendous inter-national game, it was the rendezvous of all the militia of England. In 1334, king Edward III., while at Newcastle, received in the church of the Black Friars', the homage of Edward Baliol, king of Scotland, as his superior and Chief lord of the realm of Scotland; at the same time he alienated the five Scottish counties, next adjoining the borders of Eng-

land, to be annexed to that kingdom for ever. In 1342, David, king of Scots, invaded England with a numerous army. On his march he burned and destroyed the surrounding country to Newcastle, which he invested all night. In the morning, two hundred gentlemen sallied out, dashed into the Scottish camp, and taking prisoner the Earl of Murray, general of the army, returned with little loss to the town. The enraged Scots assaulted the town with great fury, but were ably repulsed by the garrison under Sir John Nevil, then Captain of the Castle. In the year 1346, the town furnished for the siege of Calais, 17 ships and 314 mariners.

In 1356, Newcastle received a charter from Edward III., a charter which rendered the mayor, lord of the manor, and conferred on the Burgesses new privileges and immunities. In 1400, Newcastle was separated from the county of Northumberland, by a charter of Henry the VI., and was constituted a town and county itself. The town was at this time guarded at night by regular warders on the walls, both to protect it from surprise, and to prevent the escape of prisoners of war,—the expense was defrayed by the inhabitants.

In order to make an end of the strife and differences which had existed between the two kingdoms of England and Scotland, the basis of an union was laid by affiancing Margaret, the eldest daughter of Henry VII., to James IV., king of Scotland. The Princess had not completed her fourteenth year,

when she was sent to the Scottish court. She arrived at Newcastle on her way thither, on the 24th of July, 1503, where she remained until the 26th, and was entertained with great state. In 1513, James IV., of Scotland, crossed the border with one of the most formidable armies that had ever invaded England, and laid siege to Norham Castle. The Earl of Surrey, to whom Henry VIII., had entrusted the defence of the kingdom, set out immediately for Newcastle, at the head of a well-appointed army of 26,000 men, and was joined by his son Thomas Howard, lord high-admiral, with 5,000 excellent troops, which he had brought by sea to Newcastle. The battle of Flodden ensued, in which fell the gallant king James IV., and the flower of the Scottish nobility.

In 1559, a treaty of peace was signed between Elizabeth queen of England and Mary queen of Scotland, but during the same year, the duke of Norfolk came to Newcastle, as lord lieutenant-general of the North, to muster an army, which, in conjunction with the fleet, were intended to support the new protestant party in Scotland, under the lords of the congregation. Elizabeth having obtained the restoration of the Reformed religion in England, intended by this step to strengthen the Reformation in her own kingdom, to prevent the establishment of the French power in Scotland, and to punish that Court for disputing her title to the Crown. Elizabeth, also in a letter to the duke of Norfolk, desired him to bor-

row seven or eight hundred pounds of some of the Newcastle merchants, till her own money should arrive, the carriage of which in winter was troublesome and tedious. In 1599, Queen Elizabeth granted to the mayor and burgesses of Newcastle a charter, called THE GREAT CHARTER, which formed the basis of their constitution, and with trifling revisions continued to regulate the municipal affairs of the borough, until the passing of the Municipal Reform Act, in 1835.

In 1603, James I., on his way to take possession of his English throne, was welcomed with tumultuous joy by the burgesses, and treated by them during the several days of his stay with great festivity; the next year he enlarged their charter and specially defined their privileges and immunities. In 1617, James was a second time in the town, when he was presented in the name of the Corporation, with a great standing bowl of the value of one hundred jacobuses, and an hundred merks in gold. The Lord President and Council of the North officially sat in the Guildhall in the same year.

King Charles I., being persuaded by policy and piety, that the Scottish prelates were the pillars of the crown, raised them to the chief dignities of the state. This excited the indignation of the nobility and inferior clergy, who, supported by the people, formed the famous COVENANT and raised new forces. In consequence, the king entered Newcastle at the head of a gallant army, attended by all the peers in

England. He remained in town twelve days, and was magnificently entertained. In 1640, the Scottish army under the command of Leslie, a soldier of experience and abilities, having marched through Northumberland, encamped near Newburn. The king's army commanded by the Earl of Northumberland, was stationed at Stella Haugh. On the following day hostilities commenced, when the king's army suffered an irreparable route. At a council held by Lord Conway, at midnight after the defeat, it was resolved to evacuate Newcastle immediately, and the whole army quitted the town. On the Sunday following the Scots entered; and in order to prevent the destructive expedient of plunder, the Northern counties agreed to pay a contribution of £850 a day. In 1641, the Scottish army, after lying in good quarters a twelve month, quitted Newcastle on its return to Scotland, on receiving £300,000 from the English Parliament for their "brotherly assistance."

When the KING and the PARLIAMENT were preparing for war, both parties were extremely anxious to acquire secure possession of Newcastle-upon-Tyne. The king having appointed William Earl of Newcastle to be governor of the town, he discharged his duties with great spirit and judgment. He reinforced the garrison with 600 foot, and 100 horse of the trained band of Durham. The North of England being in a great measure free from the political agitations that convulsed other parts of the kingdom,

adhered steadily to the royal cause, Northumberland, Durham, Cumberland, and Westmoreland, uniting in a league for the king. The mayor and council of Newcastle, sent a loyal address accompanied with a loan of £700. In 1643, projects were agitated in both houses of parliament, for taking Newcastle-upon-Tyne out of the hands of the royalists. An ordinance was passed for assessing the town £25 weekly, but the king's friends opposed these measures, and a duty of threepence per chaldron was laid on coals.

The Scottish covenanters, being alarmed at the success of the royal cause, despatched General Leslie, now Earl of Leven, with the first division of the army, and he crossed the Tweed in 1644. Sir Thomas Glenham, with the loyalists retreated from Alnwick to Newcastle, pursued by the Scots. The town was summoned to surrender, but the Marquis of Newcastle prepared for a resolute defence, Sandgate and other suburbs, containing in all, one hundred houses were burnt by his orders. The Scots after remaining some days inactive before the town, encamped their main army at Heddon on the Wall, shortly after they marched southward and joined Lord Fairfax in the siege of York. After the fatal battle of Marston Moor, which proved so ruinous to the royalist cause, they returned northward to meet the Earl of Calender, who had entered England with a reserved army of 10,000. Newcastle, the last bulwark of the royal cause in the north, was then

closely invested. The garrison, nevertheless, in frequent sallies stormed the trenches of the Scots, who were kept perpetually on the alert, in order to repel these desperate attacks.

After the town had been besieged, and had made a spirited resistance for ten weeks, the Earl of Leven, by letter, entreated the mayor and council to surrender the town, and stop the further effusion of christian blood. So far from regarding these entreaties, the besieged redoubled their exertions in support of the royal cause. The cannonade from all the Scottish batteries was therefore directed against the town with great fury, and a breach was made in the walls capable of admitting ten men abreast, when the assault became general. In their attack they were severely entertained by the besieged, who left nothing unessayed to repel the assault; they played incessantly from the castle upon the breaches and flanking towers of the walls with scattered shot. The conflict was desperately maintained during two hours, and the Scots suffered a considerable loss of soldiers and officers of quality. Sir John Marley, mayor, Earl Crawford, and others, that had been most resolute in holding out the town, betook themselves to the castle, but afterwards surrendered as prisoners to the Scottish army. Thus, was the town taken from the king, after an obstinate and gallant defence, and may well assume the motto bestowed upon it, "*fortiter defendit triumphans.*" The beseiging army

was estimated at 30,000 men, whilst the garrison did not exceed 1,500. When the Parliament heard of this important capture, a public thanksgiving was appointed "for the success of the Scottish army."

It is said, that during the siege, the Earl of Leven threatened the mayor, that if the town was not delivered up he would direct his cannon so as to demolish the beautiful steeple of St. Nicholas. The mayor, Sir John Marley, instantly ordered the Chief of the Scottish prisoners, to be taken to the top of the tower under the lantern, and returned him an answer that if that structure fell, it should not fall alone, as his countrymen were placed in it, with a view either to preserve it from ruin or be destroyed with it; this had the desired effect.

King Charles, being reduced to a condition in the last degree dangerous, threw himself into the protection of the Scottish army, which, on the approval of the English, retired with the royal fugitive to Newcastle, which they reached in May, 1646. The king having been retained nine months by the Scots, in pledge for their arrears, it was finally agreed, that they should accept £400,000 in lieu of all demands, and that the king should be delivered up to the parliament. When the king heard of this infamous bargain, he was playing at chess, but such was his equanimity that he continued the game, and none could perceive that the letter had brought him news of any consequence. The commotions of the times still continuing, the parliament

was induced to vote £5,000 for repairing the fortifications of Newcastle and Tynemouth, and the town was placed in a posture of defence.

Early in September, Lieutenant-General Cromwell passed through Newcastle in pursuit of the royalists. He afterwards returned to Newcastle, at the head of his army, which rested here three days, and are said to "have been received with great acknowledgments of love;" and were sumptuously feasted by the new mayor. *

On the death of Oliver Cromwell, his son Richard was proclaimed protector of Newcastle, and complimented on his accession by the mayor and council but, in 1660, General Monk, the virtual restorer of Charles II., crossed the Tweed; and Lambert, the parliamentary General, surrounded with inextricable difficulties, retreated from Newcastle, when his army almost entirely deserted him; and Monk entering the town, he was met on the road by great multitude of people, and welcomed by loud acclamations. The inhabitants had always been suspected to retain

* As characteristic of the ignorance and superstition of the times, it may be mentioned, that in the first year of the Commonwealth, the inhabitants petitioned the Common Council praying, that persons suspected of witchcraft, should be apprehended and brought to trial—and the following entry is made in the books of the Council.—March 26, 1649.—Witches.—The petition concerning witches was read, and ordered that thanks be returned to the petitioners; and that the Council will contribute their best assistance therein. In pursuance of the appeal, a contract was made with a reputed witch-finder, as the result was, that one supposed wizard, and fourteen accounted witches, belonging to Newcastle, were executed on the Town Moor.

their attachment to the monarchical form of government, and now displayed their joy and triumph, and received with kindness their townsmen who had suffered exile.*

Charles II., after his accession, having assented to the act of uniformity, in direct violation of his previous engagements, the ecclesiastics in general were eager to avail themselves of its authority, in order to retaliate upon their enemies, more in the spirit of party justice than in the clemency of christian mercy ; the Bishop of Durham, in consequence, wrote to the authorities, complaining of the numerous conventicles held in the town, which " scandalous and offensive meetings" were " contrary to the known laws of the church and realm of England." The mayor and five aldermen replied, that " if any offenders against the late statute had not been punished, it was for want of evidence to convict them. Whereupon the Bishop responded, that if they knew

*Two singular punishments appear to have been practised in this borough, about this time. A common drunkard was led through the streets covered with a large barrel, called a " Newcastle cloak," one end of the barrel being taken out, and a hole made in the middle of the other, to admit of the head of the culprit appearing through it, by which contrivance it was borne upon his shoulders. The punishment for a scold was an iron crown or sort of helmet, called " the Branks" which was placed on the head, from which an iron tongue was suspended which fastened in the mouth of the virago, and thus was she led through the streets by an officer of the Corporation. This curious apparatus is still preserved in the Court-house ; we suppose their disuse must be attributed, like our more modern treadmill, to the utter uselessness of such expedients, either to cure vice or prevent crime.

not of such "disorderly assemblies," they were **gi** strangers to the affairs of the town, the governm of which was committed to their care.

On the accession of James II., the magistracy Newcastle was composed partly of Roman Cathol and Protestants, and occasionally the regalia of Corporation was carried to the Church, the Cath chapel, and the Dissenting meeting house. A li before the revolution, there was erected before Exchange on the Sandhill, a beautiful equest statue of James II., cast in copper, of the siz the famous equestrian statue of Charles II., Charing Cross, London. The statue is said to h been raised upon a pedestal of white Italian mar fourteen feet from the base, which was of bl marble polished. In 1688, when the town decla for the Prince of Orange and a free parliament is stated that the mob demolished this statue, threw horse and rider into the river.* The m of the statue was afterwards cast into bells, for Saints' church, except a leg thereof which was gi to cast a new bell for St Andrews.

Although James II., had vacated the throne, William of Orange had been universally ackn ledged, a scheme was got up in 1696, by James

* It is supposed by some, on very probable evidence, this statue was never really set up, but, that it may hav mained on the quay where it had been landed only a time previous to the disturbances, when its contiguity to river would easily suggest to the mob the idea of thro it in.

conjunction with the king of France, to make a descent upon England near to Newcastle-upon-Tyne, and one reason assigned was, that the cart horses which carried coals from the mines to Newcastle and Sunderland, would be useful for carrying the baggage of the army; the design appears to have been abandoned. Shortly after the accession of queen Anne to the throne, in 1702, a petition was presented respecting the fortifications of the port of Tyne, and the House of Commons participating in the fears expressed by the Corporation, an order was made that the whole house should attend upon queen Anne with an address, to request her to fortify these places. In 1707, another address was presented to the queen, by the Officers and Corporation, on the happy union of the two kingdoms of England and Scotland.*

The year 1715 is rendered memorable by the rash and ill-advised rebellion designed to place the pretender on the throne of England, in opposition to George I., who succeeded to the royal dignity on the death of queen Anne. The Earl of Derwentwater, and other noblemen and gentlemen, engaged in the enterprise, and Thomas Forster, M.P., for Northumberland, was appointed general. They had purposed to have made themselves masters of New-

* In 1709, application was made to parliament, for leave to make the river Tyne navigable to Hexham, but the Corporation opposed the measure, as likely to be ruinous to their port. It is to be regretted that such purpose was opposed. It may form the noble project of some future Tyne commissioners.

castle by surprise, but the Earl of Scarborough, lord lieutenant of Northumberland, accompanied by numbers of the neighbouring gentry and their tenantry, all well mounted and armed, had previously entered the town. A body of 700 volunteers had been raised for its defence; and the keelmen and other inhabitants offered to form an additional guard of 700 men, to be ready at half-an-hour's notice. So that when the leaders of the rebel forces knew that it was prepared with such efficient means of defence, they proceeded to Hexham, and shortly after being defeated at Preston, they were forced to surrender to the army of the king.

When the standard of rebellion was raised in 1745, in favour of the young Pretender, Newcastle evinced the most ardent loyalty; and, as it was one of the most important positions of the North, it was made the rendezvous for the army for some time. Regiments from all parts near were ordered into the town, and soon 15,000 effective men well equipped were mustered, with several parks of artillery. Newcastle contributed a large volunteer force; Sunderland furnished the town with sixteen pieces of ordinance, and several keels heavily laden with artillery; ammunition and other stores were sent from Clifford's fort. Great guns were placed at all the town's gates, and 200 cannon were placed upon the walls. Many officers of distinction arrived at Newcastle, and field-marshal Wade, came to take the command of the army, who with

a great number of general officers, reviewed the army on the Town Moor, where it was drawn up in battle array. The greatest consternation prevailed when the intelligence was received of general Cope's defeat by the rebels; many of the opulent inhabitants fled, taking with them their most valuable effects, but others re-doubled their exertions for the defence of the town. The Duke of Cumberland passed through the town on his way to Scotland, and was received with due honor by the mayor and corporate officers, and the greatest enthusiasm on the part of the people. When the news of the decisive battle of Culloden arrived, the greatest rejoicings ever known took place, and the Duke on his return received the public thanks of the Corporation.

When the proclamation declaring war with America was read in Newcastle, in 1775, the populous heard it in silence, and subsequently the burgesses sent a petition to his majesty against it. In 1778, Newcastle raised a large subscription for repairing its fortifications, to withstand a possible descent of the Americans or French.

In 1792, the volcano of the French revolution burst forth in all its terrific grandeur, and fixed the attention of every civilized country; while the Bourbon throne, upheld by the veneration of fourteen centuries, was shaken to its foundations, and the destinies of Britain seemed to be placed in danger by the success of the revolutionary cause.

England was speedily in arms ; voluntary associations were formed in every town for internal defence ; and in consequence, a regiment was formed at Newcastle, consisting of eight companies under the command of Sir Matthew White Ridley, Bart. The alarm of invasion by the French becoming very prevalent, occasioned a run upon the provincial banks, and obliged those in Newcastle to suspend payment. A committee of enquiry was immediately appointed, who reported that the whole liabilities of the banks did not exceed £230,000. Several gentlemen thereupon signed a bond, binding themselves to be responsible for certain respective sums, the total amount of which, nearly amounted to half a million. The result was, that confidence was restored and the usual business of the town went on. Subsequent public events have for the most part had reference to architectural, municipal, commercial, and social improvements, and though less showy than preceding ones which glittered in the fierce and so called glorious burnishings of war, they have been incomparably more useful and educed almost the whole of the rapid and amazing prosperity of the town.

NOTE—It may be observed that in this brief historical sketch, we have taken but small note of Gateshead ; the truth is, the history of the one is the history of the other. They have equally shared in the dangers of the past ; they are mutually identified in interest as one at the present ; and, in the future, they must wax or wane together.

General Description of the Town.

Newcastle-upon-Tyne is acknowledged to be one of the most prosperous and rapidly increasing of the large towns of England. It is situated at the Southern extremity of the county of Northumberland, on the North side of the Tyne, nearly ten miles west of the German Ocean, 56 miles east of Carlisle, 117 miles south-east of Edinburgh, and 273 north, north-west of London. The Borough has been represented in Parliament by two members from the earliest times. The parliamentary and municipal boundary, including the outer-townships of Westgate, Elswick, Heaton, and Jesmond, extends over an area of nearly 5,000 acres, its population at the last census was 87,784, but must now be estimated at considerably above 90,000. Such has been the rapidity of its progress, that while the general increase of the population of the kingdom since the commencement of the present century, has but *doubled* itself, Newcastle has *trebled* its population, and more than *trebled* the number of its dwelling-houses during the same period.

However well adapted in olden time the site of the town may have been for a fortress and garrison, it must be acknowledged to have been but very ineligible for the general purposes of modern convenience, the requirements of commerce, and ac-

commodations of trade. And it has only been by the enterprise of her merchants, and the public spirit of the inhabitants, that the natural disadvantages have been overcome, and the town which has been for the major portion of its history, the jarring scene of border strife, and the seat of the warring elements of the times, has become one of the most important industrial locations of the kingdom.

Just under the brow of the Castle hill stands the Tyne bridge, which from the consideration of its necessity and utility deserves pre-eminence in observation. This is at least the third structure that has occupied the same position. The first was Hadrian's bridge, which being built of wood was destroyed by fire in 1248. In conformity with the times, various bishops granted indulgences to those who contributed to the erection of the second bridge; and it was so constructed as to support a row of shops and houses on each side. In 1389, a considerable part of this second bridge fell by an inundation, and 120 people were drowned; it afterwards underwent considerable repairs, but, in 1771, it was so irreparably destroyed by a flood as to render the present structure necessary, which, after having been widened and otherwise improved, several years after its erection, now presents its present appearance. It consists of nine arches, it is built of stone, and wears the appearance of uncommon strength and stability. The entire cost is calculated to have been £60,000.

The steep slope of the principal hill facing the river which bears aloft the castle, was probably the ground first edified in the ancient town. Built at a time when its inhabitants were most anxious about the security of life and property, which was only to be had by being within the range of the walls of the castle and its towers; it became necessarily crowded with narrow lanes and closely packed buildings, and largely partook of those features of a British garrison town, as to both houses and thoroughfares. The *Sandhill*, which skirts the base of the chief rising ground, derived its name from its having been at low water a hill of sand deposited by the tides; it is now a spacious and well planned area. On the south side, next the river, stands the EXCHANGE and Town Hall. The original building was erected by Roger de Thornton, an opulent and munificent merchant; it was removed in 1655, and a superb edifice with a lofty steeple in the Gothic and Italian styles, was built by Robert Trollop, architect, at a cost of £10,000. The building since then, has been considerably modernized in the course of its necessary repairs. In 1825, the east end was added from a design by Mr. Dobson, at a cost of £7000. Some of the houses and shops on the other side of the Sandhill, still exhibit marks of their antiquity. The *Quayside* which is built in front of the river, running east of the Tyne bridge, and which has been one of the scenes of the late conflagration, is occupied chiefly in front by shops and offices, and has

ever been the most important centre of trade and commerce in the town. It is at present one of the longest and most commodious wharfs in the kingdom. It is usually crowded with shipping, and the commercial business done is connected with every port in the civilized world. In the centre of the quay stands the Custom-house, which has of late years been considerably improved and ornamented with a handsome stone front.

A little lower down is the Trinity House, an institution of considerable importance in maritime matters. There are alms-houses attached to it, and an excellent school. The school is justly celebrated for the mathematical ability of its masters, and the eminence attained by many of the scholars.

At the foot of the Quay is *Love Lane*, in which were born the late lords Eldon and Stowell, two of the most distinguished men of their times, both in the senate and at the bar; their father, William Scott, was a respectable coal-fitter and merchant on the Quay. Proceeding westward from the bridge, extends the street called the *Close*, probably deriving its name from the closeness of its buildings; but it has been of late years considerably widened and improved. And, however mean as its appearance may be now, it has evidently been a street of importance in ancient time, for herein stood the house of the Earls of Northumberland, and in this street may also be seen the OLD MANSION HOUSE, which was built in 1691, at a cost of £6,000. The

street is still of importance from the extent of its warehouses and manufactories, and from its river frontage not likely to be less valuable as improvements progress.

The north angle of the Sandhill opens into the *Side*, which probably takes its name from being built on the side of the Castle hill; about midway it is spanned by a light, beautiful, and lofty railway arch; it is very narrow in the higher part leading westward up a steep ascent to ST. NICHOLAS' CHURCH,



which is said to have been styled in the earliest accounts of it, "the Church of Newcastle-upon-Tyne." The original structure is supposed to have

been destroyed by fire, and the present structure to have been erected and finished in the year 1359. This celebrated edifice is two hundred and forty feet in length, and seventy-five feet in breadth. The steeple, which is justly allowed to be the boast of the inhabitants, is nearly two hundred feet in height, and for its peculiar excellency of design, and delicacy of execution, is esteemed to be one of the finest specimens of gothic architecture in Europe.

To the south of the Head-of-the-Side, you pass through a narrow street which leads into an open space called *Castle Garth*, and as its name implies, in olden times it was enclosed within the Castle walls, which are said to have extended over an area of more than three acres. Here stand the County Courts of Northumberland, called from ancient date "*THE MOOT HALL.*" They are used for the holding of assize, sessions, and gaol-delivery. They are a massive pile of building, and ranked amongst the finest and purest specimens of ancient architecture. The building stands with conspicuous effect, and presents in the south front, a noble appearance from the old Tyne bridge; the cost of its erection was £60,000.

Near to the west of the County Courts, is the north entrance to the *HIGH LEVEL BRIDGE*, one of the most astonishing structures in England, being a *double bridge*, the lower for general passage and traffic, at the height of eighty-five feet, ten inches

HIGH LEVEL BRIDGE, NEWCASTLE UPON TYNE.



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and a-half, above high water mark; and the upper for Railway purposes, at a further height of twenty-two feet, seven inches and a-half. The bridge consists of four water arches and two land arches, each 124 feet 10 inches span, and 138 feet 10 inches from centre to centre of the piers; the width of carriage road, is thirty-five feet one inch, and forty-four feet ten inches outside width of piers; from the north to the south entrance is upwards of a quarter of a mile. The arches are formed of iron, and the pillars of solid ashlar stone. It has been estimated that the iron-work in the structure would weigh nearly 5,000 tons; the mason work in and over the river, has been at a cost of about £100,000; the masonry and brick work of the land arches about an equal sum, and the iron-work a still larger sum. It was stated at a meeting of the Railway Company in 1849, that the total cost had then amounted to £356,152, which included £113,057 for the viaducts in connection with the bridges over Newcastle and Gateshead. The land and compensation buildings are stated to have cost £135,000 additional, amounting in all to £491,152. The first pile was driven in April 24, 1846; and the completion of the last arch was celebrated June 7, 1849. The upper bridge for the conveyance of trains, was opened August 15, 1849; and the lower bridge for carriages and foot passengers, January 16, 1850. This stupenduous structure will stand for ages, a monument of enterprise

and skill, exhibiting to all what an union of effort and oneness of purpose can accomplish.*

We have here also, as in contrast, the noble ancient NORMAN KEEP, which proudly lifts its head, after having withstood the clang of arms, and the assaults of war for ages past. It stands encircled with the iron bands of commerce, ratified by the bonds of peace, affording more stable security for its protection than its ancient walls; and it now bids fair to endure and to be the grand land-mark of the town throughout a continuous course of ages yet to come.†

Dean Street is comparatively a modern street, leading northward from the middle of the Side, and carries forward up a steep acclivity the great north-eastern road of England. The street is so named

* There were but few fatal casualties occurred during the erection of the bridge. Robert Taylor, the foreman of the Iron Works, overstepping the plank on which he was standing, fell, and was killed in consequence. John Smith was wonderfully saved by his trousers catching a nail when falling, and holding him, head down, until he was rescued by his fellow-workmen. John Watson had also a miraculous escape; the plank on which he sat cleaning the outside of the iron work, from some cause gave way, so as to throw him a complete somersct, when in turning he caught hold of a projection, and with the tips of his fingers held on until he was delivered from his perilous position. Sometime after the opening of the bridge, a fool-hardy fellow, half drunk, jumped from the bridge into the river, for the trifling wager of a pot of beer. The wind through the arch broke his fall, and he was taken up by a boat, not any way seriously injured by his rash act.

† The Castle is now under the very appropriate conservative care of the Antiquarian Society of the town.

from having been formed over a *dean* and burn which ran down the centre of it. As it dates from the same period as the building of *Mosley Street*, which runs across the top of it at right angles, and formed part of the same projected improvements, they partake of the same characteristics, being substantially built brick buildings, good shops and spacious streets, which, up to the time of Mr. Grainger's improvements, were the most respectable business streets in the town.

From the Foot-of-the-Side, turning to the right from the north angle of the Sandhill, by a narrow and steep ascent, anciently called All-hallow Bank, but now only known by its modern name Butcher Bank, you enter the foot of *Pilgrim Street*, one of the oldest streets in the town, and which is said to have derived its name from the Pilgrims that came from all parts of the world, passing through it to worship at "our Ladies' Chapel," at Jesmond. By being connected with Northumberland Street, (which may be considered as a continuation of Pilgrim Street,) it forms one direct line through the whole extent of the town, and is one of the most spacious and agreeable of the ancient thoroughfares. At the foot of the street, and yet on a considerably elevated position, stands ALL SAINTS' CHURCH. The form of the Church is elliptical; the south front of the structure consists of the base of the steeple, with a handsome Doric portico in front, with the two wings, above which is seen the body of the

church. The steeple consists of a handsome square tower, $96\frac{1}{2}$ feet in height, which is continued by a succession of diminishing superstructures terminating in a lofty spire, from the point of which to the base of the tower is 202 feet. The appearance of the church from the south-east corner of the Cemetery well deserves the attention of the observer. From the south side of the Tyne, it presents an interesting contrast with the Gothic spire of St. Nicholas and the massive tower of the Castle. The pews inside are of solid mahogany. £27,000 is considered to have been the total cost of this elegant structure.

The chief public building in Pilgrim Street, is the ROYAL ARCADE, situated at a point facing Mosley Street; it is entered between two massive Doric pillars, and extends 250 feet by 20. It ranges in three stories, the lower one Doric, the upper Corinthian. This magnificent contribution to the architecture of Newcastle, cost nearly £45,000. At the foot of the Arcade steps is the POLICE STATION, with which is connected the Magistrates Court. A little higher up stands the GAOL, situated in Carliol Square; its exterior presents a most massive and formidable structure. The interior arrangements are acknowledged to be calculated for purposes of security, classification, inspection, and employment, equal if not superior to any in the kingdom. The purposes of a prison have been effectually served by its erection, but how far it may have been promotive of

primary purposes as a House of Correction, may be doubted from the fact of the urgent demand for an enlargement of the building. In *Northumberland Street*, which is in a continued line with *Pilgrim Street*, are the PUBLIC BATHS. The building occupies an area of 176 feet by 134; the entrance into the Baths is by a handsome front on the east, on the left of the entrance there is a suite of baths appropriated to the use of ladies, and on the right to gentlemen. There are two open plunge baths, and also warm, tepid, medicated, shower, vapor and hot air baths, and commodious dressing rooms; the usual entrance is now from the west, the east end of the building being engaged by the Northumberland Cricket Club. The cost of the building was £9,500.*

At the North end of *Northumberland Street* stands *ST. THOMAS'S CHURCH*, it is a modern building, and from the style of its architecture gives considerable effect to the north entrance of the town, which has of late years undergone very important improvements by the erection of *Eldon Street*, and several beautiful terraces. To the east of these terraces is *JESMOND CEMETERY*, which is an enclosure of ten acres and a half, laid out with extended walks and tastefully planted with trees; one portion of the Cemetery has been consecrated to the interment of members of the Church of England, and the other

* Public Baths and Wash-houses have also been erected by the Corporation in the lower part of the town, for the working classes; and as the institution has been nearly self-supporting, others are contemplated.

is appropriated to Dissenters. At the north side of the town lies the *Town Moor*, which is of vast extent, being about eight miles in circumference, through which passes the great north road to Scotland, and also the north-west road by Jedburgh and Melrose. The Moor rises gradually from all sides towards its most elevated point, and includes in the prospect unimpeded views over the south-eastern parts of Northumberland and the north-eastern part of Durham; it is chiefly devoted to grazing purposes, and is the property of the Freeman. The *Race-Course* is said to be equalled by very few race-grounds in the kingdom. The Moor being a convenient distance from the town, possesses many agreeable walks across. The BARRACKS are situated at the west side of the Town Moor and enclose an area of eleven acres, for which the Government pays the Corporation an annual ground-rent of £55. The cost of their erection was £40,000.

Leading south-west from St. Thomas's Church, is *Percy Street*, which was formerly called Sidegate or Sidegate, as leading down to the Side. At the foot of Percy Street, on the north side, is *Albion Street* which, with St. James's Street, leads to LEAZES TERRACE. This terraco was one of Mr. Grainger's earliest efforts, and is a noble oblong square of stone buildings, worthy of being inspected by every visitor to the town. It was erected from the design of Mr. T. Oliver, architect. Leading from the foot of Percy Street, to Pilgrim

Street, is *Blackett Street*, a spacious modern street, consisting chiefly of dwelling-houses. Towards the east end is the MECHANICS' INSTITUTE, which possesses an excellent library and news' room, and is generally well supported and of considerable utility and importance to the town. A little to the west stands a building originally designed as an ACADEMY OF ARTS, but now devoted to business purposes. On the opposite side is *Eldon Square*—named in honor of Lord Chancellor Eldon, who was a native of Newcastle; the buildings are of stone, and remarkably chaste in their architecture. The NORTHERN COUNTIES' CLUB HOUSE forms the centre of the square; in the shrubbery in front it was originally designed to have erected a monument to Lord Eldon.

At the west end of Blackett Street and head of *Newgate Street* stands ST. ANDREW'S CHURCH. It is supposed to be the oldest church in Newcastle, although from time to time it appears to have been entirely altered and rebuilt; the first record of it dates from the year 1218. Being situated near to the north wall of the town, it received so much damage during the siege of 1644 that no service was performed therein for one year afterwards. It was near to the church that the breach was made in the wall capable of admitting ten men abreast. Newgate Street, Nuns' Gate, Groat Market, and Bigg Market now form one continued line of street of general business, down to St. Nicholas' Church, opposite which stands the CORN EXCHANGE it is

exclusively used as its name imports—for the sale of grain,—the markets being held on the Tuesdays and Saturdays.

Going westward from St. Nicholas' Church is *Collingwood Street*, so called in honor of Lord Collingwood, an illustrious townsman. It is a substantially good, plain, modern street, and considerably improved in business importance since the opening of Neville Street and the Grand Central Railway Station, to which it leads as the main thoroughfare. At the west end is the LITERARY AND PHILOSOPHICAL INSTITUTION. The building was erected from designs by Mr. John Green, architect; the style of architecture is Grecian, and the workmanship is considered to be of the most superior description. It is the most important Literary Society in the northern counties. Its library is extensive, amounting to sixteen thousand volumes.* There is also associated with the Institution a NATURAL HISTORY SOCIETY, and an interesting and valuable MUSEUM.

In Westgate Street the chief objects of interest are St. JOHN'S CHURCH and the Assembly Rooms. The Church is characterized by its plainness and simplicity, and beyond the fact of its antiquity, presents little worthy of note; it is supposed to

* Courses of Lectures are frequently delivered to the members on the various departments of Art and Science, by the most eminent Lecturers. The building is considered to have cost upwards of £13,000

have been built about the year 1287. The ASSEMBLY ROOMS are situated a little higher up, and is a highly finished structure; it was built by subscription, and opened in 1776, manifesting the taste and public spirit which then prevailed. The front elevation is of stone in the Ionic order, having a projecting centre and side wings. The grand ball room is 94 feet long, 36 broad, and 32 in height; from the ceiling are suspended seven gorgeous glass chandeliers. The centre chandelier is exceedingly brilliant and superb, having cost 600 guineas. It was built under the direction of Mr. Newton, architect, at a cost of £6,700. At the top of Westgate hill, is erected a plain neat church called ST. PAUL'S, and opposite to which is the WESTGATE HILL CEMETERY. The extent of its area is three acres, laid out and planted in an ornamental style. There is a small Chapel and Sexton's house attached to the Cemetery, but there are no restrictions as to religious rites and ceremonies. A little further west is situated the NEWCASTLE UNION WORKHOUSE. The building is very extensive, combining every needful arrangement for convenience, health, and general utility—schools are also connected with the establishment.

In a continuing line from the west end of Collingwood Street, is *Neville Street*, one of the most important streets of the town. The south side of it is completely formed by the CENTRAL RAILWAY STATION, the principal front of which is 200 yards long. The building is of the Roman Doric

order, from designs by Mr. Dobson. The passenger shed covers an area of upwards of two acres, the whole of which is lighted from the roof; it is one of the most extensive and commodious stations connected with the railway enterprise of the country. Its original design includes an elevated portico, which, when completed, will give beauty and effect to the whole building, and form the noblest architectural structure in the town.

The buildings on the side opposite are not yet completed, but will form an elegant crescent appropriately adapted to the portico of the station when erected. Independent of the bustle necessarily connected with this grand junction of railways from the ingress and egress of passengers to and from all parts of the kingdom, this street will ever be a bustling thoroughfare, as it is in conjunction with West Clayton Street one of the connecting links with the west part of the town. At the west end of Neville Street, is the CATTLE MARKET, the most important cattle market in the north of England. On the south side of the Market stands the INFIRMARY, one of the noblest charitable institutions in Newcastle; it was established about a century ago, and has lately been considerably enlarged by the addition of a new wing at the west end.

The New Town.

Hitherto the attention has been intentionally restricted to the olden parts of the town, in order to present *en masse* the splendid new streets and public buildings which specially merit to be distinguished as the *New Town*. The principal street is *Grey Street*, on a line with Dean Street and parallel with Pilgrim Street; a difficulty occasioned by a slight curvature in its line, has not only been surmounted, but with admirable taste and skill subordinated to the production of such variety in the architecture as to render the groupings rich and superb. The most extended detail would fail to convey an adequate idea of the imposing effect of the magnificent buildings of this street. The chief building on the lower range of the west side, is the BRANCH BANK OF ENGLAND, which is a splendid combination of architectural beauty.

Higher up on the east side stands the THEATRE. The portico which extends across the foot-pavement forms a striking object in the view of Grey Street. The gorgeous over-hanging pediment is supported by six finely proportioned Corinthian columns, the tympanum of which presents a bold and beautiful sculpturing of the Royal Arms. Every internal arrangement has been made to add splendour and effect to the scenic representations. The number

of spectators which the sittings will accommodate, have been estimated as follows :—Boxes, 250 lower tier ; 250 upper tier ; Pit, 200 ; Gallery, 1,200 ; but on special occasions, the auditory considerably exceeds these numbers. On the lower side of the Theatre is *Shakespeare Street*, which is also a new spacious street leading to Pilgrim Street. Adjoining the Theatre to the north is the NORTHUMBERLAND AND DURHAM DISTRICT BANK. This building is quite unique, and is considered to be one of the most chaste and richly decorated structures of the town. On the upper side of this building is *Hood Street*, which is also a respectable new street extending to Pilgrim Street.

At the head of Grey Street, stands the conspicuous and magnificent GREY COLUMN surmounted by a colossal figure of the Right Hon. Charles Earl Grey, dressed in his robes of state, whose important services as a statesman, and patriotic efforts as a legislator in the cause of Parliamentary Reform, and in the extension of civil and religious liberty, this monument is designed to commemorate. The architecture of the column is Roman Doric, and the entire height is 133 feet, and was erected by public subscription,—John and Benjamin Green, Esqrs., architects. Considerable effect is given to the area of the column by ST. JAMES'S CHAPEL, the architecture of which is of the same order. The column is so placed as to be equally effective when viewed from Grainger Street, justly

so named in honor of Richard Grainger, Esq., by whose ardent public spirit and decision of character these projected improvements were designed, and by whose indomitable energy these vast colossal buildings were reared which constitute the new town.

Parallel with Grainger Street to the west, is *Clayton Street*, commencing opposite Eldon Square in Blacket Street, and intersecting Newgate Street and Westgate Street, it forms a junction with Neville Street at the east end. Clayton Street is so designated in honour of the eminent abilities and distinguished public services of John Clayton, Esq., town clerk. From Grainger Street to Clayton Street, run two parallel streets, *Nuns' Street* and *Nelson Street*, in the latter is situated the MUSIC HALL and public LECTURE ROOM. The Lecture Room is in the basement story and is fitted up in the amphitheatre style, and is calculated to accommodate about 1,000 persons. The Music Hall is in the upper story, and is calculated, by the addition of the gallery, to accommodate a larger auditory. It is now fitted up with a powerful organ, and occasional Oratorios are performed. The square formed by Grainger Street on the east, Clayton Street on the west, Nun Street on the south, and Nelson Street on the north, forms the VEGETABLE AND BUTCHER MARKETS; they occupy an area of 14,000 yards. The extent of the vegetable market is 318 feet long, 57 feet broad, and 40 feet high,

being more spacious than that of Westminster, and roofed with wooden work in the style of Gothic cathedrals. The Butcher Market consists of four avenues, each 338 feet long, $19\frac{1}{2}$ feet broad, and 27 feet high, crossed by four lofty arcades ; it contains nearly 200 Butchers' shops. These markets for extent and eligibility of plan, are not exceeded by any in Europe.

Market Street which intersects *Grey Street* from *Pilgrim Street* to *Grainger Street*, forms one side of the triangle which with *Grey Street* and *Grainger Street* constitute the CENTRAL EXCHANGE. At each of the angles of this central structure, stands a circular temple, covered by a superb cupola having carved parapets. The style of the exterior is a rich composite, in which the Corinthian prevails. There are two public entrances to the Exchange from *Grainger Street*, one from *Grey Street*, and one from *Market Street*. The effect on entering, from its unexpected beauty and vast extent, is grand and imposing. The form is a semi-circle containing an area of 11,835 feet, including a semi-circular colonnade of remarkable splendour. Two Roman Ionic pilasters in the wall on the flat side of the area form the termination of a majestic semi-circle of twelve columns of the same order. The roof of the interior semi-circle is a dome ; and that of the outer is constructed of a very light skilful framework. This vast edifice being surrounded by buildings, is entirely lighted from the roof and the crown

of the dome by 10,000 feet of glass. The interior of the colonnade is used as a *News Room*, and is most extensively patronised,—the outer circle forming a spacious promenade.

The utilities and advantages of the *News Room* as a public institution are invaluable. While the Central Railway Station may be viewed as the collecting and distributing point of the vast multitudes of strangers visiting Newcastle, and the Quayside be considered the centre of her mercantile transactions, and the important Markets as the busy scene of her business men,—it is in the leisure hours of evening, in the Central Exchange, within the circle of its news room, or on the pave of its extended promenade, that the mind relaxes and is relieved from the fag of business, from the tension and anxiety of commercial enterprise, and the wear and tear of every day life. And, by the gentle incitements of its telegraphic dispatches and newspaper intelligence; by the every varying stores of its world-wide information; by the casual meetings, kindly greetings, and social intercourse, the exhausted physical energies are re-invigorated, and mental and moral power regained for the fulfilment of the duties of life, and the energetic pursuance of its business affairs.

We have thus briefly and necessarily imperfectly detailed the principal points of attraction of the *New Town*, and have but this consolitary thought to lessen our regret at its meagreness and defects, that

the most minute and artistic description which or pencil could produce, must almost equally : They must be visited and inspected to be f appreciated ; and though the common observer c not fail to be impressed and admire, it requires eye of the initiated, the taste refined, and the m improved by travel and observation, in order to brace, to contrast, and rightly to estimate the v ous orders of architecture and their harmonious effective groupings, as displayed in the exten streets and magnificent buildings which constit the new town. And yet, these are the mere real tions of one mind, the constituents of one dem the result of the mental and moral efforts of chief superintending head ; and by an amazing d sion of character, promptness in action, and inde table energy, these ranges of beautiful streets i magnificent buildings were reared in the short sp of four years. And "when we consider the cor quent increased population the many thousa who have found means of subsistence, and are r dependent on the business connections of the r town, and the importance which it has given to district, we are bound to add, that it has fallen the lot of no individual to confer advantages on native town, so immense, and so enduring, as h been rendered by Richard Grainger, Esq."*

Neither can we, while we review the varie public buildings which diversify and stud the tow

* See "Newcastle as it is," page 55.

fail to estimate the public spirit which dictated their projection, and the generous impulse which devised the liberal means for their erection, nor the merits of their respective architects : associated with which stand out conspicuously the distinguished names of Mr. John Dobson, Messrs. John and Benjamin Green, Mr. Thomas Oliver, and others. And while the inhabitants may be justly proud of the numerous noble buildings of the town, shall they not feel more highly honoured in the men, the embodiments and enduring monuments of whose genius they are. And yet, in the midst of our admiration, meeting at every turn the relics and reminders of antiquity, the mind is sobered with the thought, that even on these structures of modern power and skill, inexorable time shall do his work.

———“And there remain no more
Of the things that are, than the things before :
For the hand of time will only leave
Enough of the past, for the present to grieve
Over that which hath been, and o'er that which must be :
What we have seen, our sons shall see,
*Remnants of things that have passed away,
Fragments of stone, raised by creatures of clay.*”

Our primary design renders it impolitic further to pursue our descriptive remarks : otherwise, in order to form a proper estimate of the modern importance of the town, in contrast with the past, it would have been needful to have noticed in detail, the public, literary, benevolent, moral, and religious institutions, which more especially develop and mark the intellectual character and moral position of the

people. Neither would it have been less imperative to have entered upon extended statements respecting the vast mineral productions of the district, the various kinds of manufacturing produce in iron, lead, glass, earthenware, leather, chemicals, &c., &c., the amount of shipping, and the value and extent of commercial business; all of which subjects we are obligated to waive as incompatible with our design, and to pass on to notice the casualties of *pestilence* and *flood* and *fire*, which have throughout the course of successive years laid waste or depopulated the town, as more immediately consonant with the leading subjects of this book.

We insert the following list of Churches and Chapels in order more fully to carry out the design of the work, as a Guide to the town:—

CHURCHES OF THE ESTABLISHMENT,—St. Nicholas', *St. Nicholas' Square*; All Saints', *Foot of Pilgrim Street*; St. John's, *Westgate Street*; St. Andrew's, *Head of Newgate Street*; St. Thomas', *Barras Bridge*; St. Peter's, *Oxford Street*; St. Ann's, *New Road*.

BAPTIST CHURCHES, *Bewick Street*, *New Bridge Street*, *New Court*. FRIENDS' MEETING HOUSE, *Pilgrim Street*. INDEPENDENT CHURCHES, *Blackett Street*, *West Clayton Street*, *Tutthill Stairs*. JEWS SYNAGOGUE, *Temple Street*. METHODIST NEW CONNEXION, *Hood Street*. PRIMITIVE METHODISTS, *Nelson Street*, *Arthur's hill*. WESLEYAN METHODISTS, *Brunswick Place*, *New Road*, *Blenheim Street*. WESLEYAN REFORMERS, *New Bridge Street*, and *Gibson Street*. NEW JERUSALEM TEMPLE, *Percy Street*. PRESBYTERIAN (English,) *New Bridge*, *West Clayton Street*, *Argyle Street*, *High Bridge*, *Foot of Westgate Street*. PRESBYTERIAN (United) *Blackett Street*, *Carlisle Street*, *Clavering Place*. ROMAN CATHOLIC CHURCH, *Pilgrim Street* and *West Clayton Street*. UNITARIAN CHURCH, *New Bridge*.

Pestilence, Flood, and Fire.

It has frequently been observed, that Newcastle retains all the characteristics of an old British garrison town ; and there is little doubt but that, in consequence of her geographical position subjecting her to the inroads and contingencies of a border warfare, it may have been needful to conserve and perpetuate her protective strongholds of defence long after the southern towns had got rid of such incumbrances. So that, up to a late date, the description given of Newcastle may be admitted to be correct ; that it is “ a vast hanging field of sombre and cheerless houses, huddled mobbishly together into a pent-up mass, packed and squeezed by mutual pressure into panic retreat from the approach of wheeled carriage, or military operation.” This being almost necessarily so from antecedent circumstances, it is evident that the town would be at all times most seriously exposed to the liabilities of fire, the devastations of flood, and the ravages of pestilential disease ; and the truth of such view is fully confirmed by local records, and the wonder may even be that being so situated, the visitations have not been more frequent, more extensive, and more calamitous.

We now proceed to notice a few of the more striking of these casualties, as introductory to our chief objects, which are to present a condensed, yet

sufficiently comprehensive, record of the late Cholera Visitation of 1853, and the late calamitous Fire in Newcastle and Gateshead.

PESTILENCE.

The first visitation of this class on record is that of the *Plague* in 1234. But it is to be observed in the outset, that in ancient time every species of epidemic was called "the plague;" and whether this, and many other subsequent visitations were really the plague, or some other fatal form of epidemic disease, we have not now the means of ascertaining, and can only record that this visitation continued for three years. The local historians attribute its cause to the disorganized state of society generally prevailing at this time; the knights and squires setting the restraints of law at defiance, were little better than common marauders. The town also experienced a great dearth and mortality in 1240, which was considered to proceed from three months drought being followed by three months of continued rain.*

The disorders and consequences of border forays and the ravages of war we find frequently followed by famine and pestilence; and in 1317 these evils

* It will be remembered that the cholera epidemic of 1853 was preceded by heavy and long continued rains at the close of the year 1852, and a severe snow storm and rains in the early months of 1853.

were sorely increased by three successive years of scarcity, and the famine and mortality were so grievous, that the living it is said, could hardly bury their dead. The general distress prevailing is described in language too highly coloured to meet belief in our times. Pestilential visitations are also recorded in 1345, and again in 1410, and also in 1478.

In 1588-9, the plague raged so grievously in Newcastle, that there is said to have died *one thousand seven hundred and twenty-seven persons*. Though we may justly doubt the correctness of the returns in those days, from the difficulty there is even now in attaining correctness, yet it cannot be doubted, but that considering the limited population of that distant date, the mortality must have been fearful, and far in excess of any visitation of modern times.

The plague which raged so dreadfully in Newcastle in 1636 is supposed to have come over from Holland, and other parts beyond the seas. It began at North Shields, in October, 1635, and after an intermission of some months, broke out at Newcastle with such fury, that there are reported to have died between the 6th of May and the 31st of December, 1665, *five thousand and fifteen persons*; and at Gateshead, between the 30th of May and the 16th of October, *five hundred and fifteen persons*. This may be called the great plague year of England, in which London was also so dreadfully ra-

don. Whatever may have been the nature of other visitations, there was no doubt about this; the especial marks of the plague were clearly ascertained, all trade was at a stand, and it is a tradition that so depopulated was the town by desertion and death, that grass covered the streets. In order to prevent the spreading of the contagion, fumigations of pitch, rosin, and frankincense, were used as antidotes. With what deepened interest do we now read of these things, when we remember what numbers left the town during the Cholera epidemic, and after having participated in the intense anxiety of the people, and having witnessed like means adopted in 1853.

It appears, however, that in 1645, when again visited with the plague, the inhabitants had recourse to a much more remarkable mode of cure, which was no other than to send for the *Lee-penny*, the authorities having to give a bond for a large sum in trust for the loan. This curious piece of antiquity called the *Lee-penny*, was a stone of a dark red colour and of a triangular shape, set in a piece of silver. It had been in the *Lee family* according to tradition for upwards of three hundred years, and it is said to have had many virtues, in curing diseases in men and cattle. The mode of its use was by dipping the stone in water, which was given to the diseased to drink; and it is recorded, that it did so much good in these plague cases, that the authorities offered to pay the amount of the bond in order to keep the

Lee-penny ; but the proprietor would not part with it.*

In order to prevent the importation of plague in 1665, there was an order of the Council, forbidding masters of ships to bring passengers or goods into the harbour, and sailors were forbidden to come on shore on pain of imprisonment ; at that time it raged in Gateshead and Sunderland. In 1675, a pestilential disease prevailed in Newcastle, called the "*jolly rant*." Whether this designation was indicative of the short time of its continuance in the town, or to its rapid individual mortality, or in what way the name was descriptive of the disease we learn not ; but it was surely too serious a matter to make light of, for there died of it *nine hundred and twenty-four persons*. This is the last visitation of plague or pestilence we read of, until it makes its appearance under the modern designation of Cholera in 1831, being upwards of 150 years, during which the town was exempt from any violent visitation of that character. It may also be remarked, that during this period the general aspect of things began to change, that the town was freed from the dire consequences of national warfare and border

* We suppose the disciples of the modern water cure would rather be attributing the virtues to the water than the stone ; nevertheless, the faith in the stone might aid the cure. Of this, we are sure, that a little more faith and practice in such wholesome water drinking, and its more general application, externally as well as internally, would both prevent and cure a great many of the prevailing diseases and epidemics of the day.

foray, to which it had been subjected for centuries before ; for war not only laid waste the country and exhausted resources, but involved a neglected cultivation, and famine and pestilence were the effects entailed upon the people.

CHOLERA.

From the course marked by the ravages of the Asiatic cholera over the continent of Europe, it was long feared that this country would not escape a visit of the desolating scourge, so that the medical profession were in part prepared for its appearance ; but the suddenness of the outbreak in our immediate locality, the rapidity of its mortality, and the general inexperience of the medical profession in the nature of the disease, considerably baffled their efforts, and the panic which impressed the minds of the people became a powerfully predisposing cause to its attacks. It is recorded that the Cholera first made its appearance in these northern counties at Sunderland, on the 26th of October, 1831, and so fatal were its effects, that between that date and April 3, 1832, there were 358 persons attacked, of whom 205 died. Although individual cases of cholera undoubtedly occurred in Newcastle and Gateshead, nearly simultaneously with those in Sunderland, yet the epidemic did not break out in its virulence until the month of December, 1831. From this time the disease raged

with serious malignity until the spring, when for a time it ceased, but renewed its attack in the months of July, August, and September, and gradually abated towards the close of the year. It is calculated that the total mortality in Newcastle was 801, and in Gateshead 234, being a mortality of *one* in *seventy* of the population of Newcastle, and *one* in *sixty-five* of the population of Gateshead. The population of Newcastle in 1831, being 55,922, and Gateshead, 15,177.

From the constant intercourse with Sunderland, this visitation had been apprehended for some time, and every precaution had been adopted to avert as much as possible the impending danger. The authorities were unceasing in their exertions to mitigate the predisposing causes. The lanes were washed with hot lime and thoroughly cleansed, cholera hospitals were opened in each parish, and the dead were ordered to be interred within twelve hours of their decease. The barracks were closed, and the soldiers were not allowed to come into the town; a quarantine was placed upon all ships from the port, and business was generally at a stand. It was on January 16, that the greatest number of deaths occurred in one day, when twelve persons died. The inhabitants were unremitting in relieving those who were in misery and want; clothing, and bedding, and fuel, were distributed to the amount of £1,300. It is worthy of note, that while the deaths in the town for September, October, and November, in 1830, were

538, for the corresponding months in 1831, immediately preceeding the cholera, the deaths were 432, being 106 less than the former period ; so that the town appears to have been in a more healthy condition at the time of the outbreak, a fact which deepens the mystery of the cholera visitation.

There is little to record respecting the second visitation of cholera in the year 1849. The slightness of the attack is attributed to the active attention paid to sanitary condition a short time previous to its appearance, in consequence of the great scarlatina epidemic of 1845-7, and of the great Irish fever of 1846-8, both of which forms of epidemic were most seriously fatal.* The causes were imputed to the defects of superficial drainage, filth accumulated, bad ventilation, poverty, privation and intemperance ; and such was the state of certain districts, " as to warrant the fear of an epidemic disease being generated, without an actual importation of it." Owing to the earnest appeals of the Sanitary Association and medical reports, the authorities bestirred themselves, the lanes were cleansed, and the houses white-washed, and much accumulated refuse and filth removed. The town being generally improved, the result of these efforts was so beneficial, that the town com-

* The average mortality of 1842-5, inclusive, was 1754, the average of the succeeding three years 1846 to 1848, was 2633 ; nearly 900 increase. The year 1846, when compared with 1845, has an increased mortality of 1,159.

paratively escaped the cholera visitation of 1849. The mortality being only 295 in Newcastle, and in Gateshead 186, and, supposing the population in 1849, on the data of 1851, to have been for Newcastle 80,000, and Gateshead 22,000, it would give one death in two hundred and seventy-one of the population in Newcastle, and one to one hundred and eighteen in Gateshead, so that this visitation pressed with a double severity on Gateshead, when compared with Newcastle ; whereas in 1831 the mortality was nearly equal.*

Having thus had to bear the brunt of two visitations of Cholera, an anxiety was naturally excited in the minds of the observing respecting the progress of the Cholera epidemic throughout the continent of Europe during the early months of the year 1853. The warning voice was raised, "that beyond all doubt the disease was again journeying towards England, and that, in all human probability, before many months, perhaps weeks, have passed away, it will again have cast the blue and icy mantle of its life-destroying touch over thousands of our countrymen, *for the Cholera will find us as unprepared to meet it as before.*" This prophetic announcement of Dr. J. C. Hall, which appeared in "*the Times*," in the month of August, had its truth fully confirmed by a letter from Dr. Robinson, dated September 2nd,

* It is to be regretted that the Cholera Commissioners' Report, does not contain more detailed statistics in reference to the cholera visitations of 1831-2, and 1849.

addressed to the Board of Health, announcing the fact, "that Cholera had made its fatal appearance in Newcastle; and that from its geographical position and its notoriously defective sanitary condition, he could not but be apprehensive that an epidemic visitation of cholera under existing circumstances may be productive of a fearful loss of life." How seriously this was to be realized, a few days served to confirm. The Board of Health on the receipt of Dr. Robinson's letter, immediately addressed the Home Office; but the Board considering the cases which had been brought before them (as reported in London and other places,) as sporadic and not epidemic, a delay of five or six days took place before Mr. Grainger, one of the medical superintendents of the London Board of Health, was despatched to Newcastle, and that only in consequence of a confirmatory letter being indirectly received by the Board from Dr. Glover, to the effect "that cholera had increased in Newcastle."

From the Report of the Cholera Commissioners*, we learn that the first cases began, and the last cases ended, in the following order:—

BEGUN.	ENDED.
Sept. 1.—All Saints' District.	Oct. 23.
„ 1.—St. Nicholas'	„ 16.
„ 6.—St. Andrew's	„ 24.
„ 1.—Westgate	„ 29.
„ 4.—Byker	Nov. 4.*

* Mr. Clephan, in his "Facts and Figures" states, that the three first cases were as follows:—August 30, Lisle Street, Newcastle; August 31, Victoria Street, Gateshead, and September 1, Bill Quay, (Heworth).

The disease will thus be seen to have been simultaneous and general in its first attack, not confined to particular districts, as on former occasions, but almost universal and immediately spread over the town. Previous epidemics had been more especially circumscribed to certain low localities, and certain classes of character and circumstances; but the visitation of 1853 was not exclusive in those districts where the sanitary condition was bad, and where the dissolute inhabit, and the poor and impoverished in circumstances were chiefly to be found, for it also had numerous victims in the residences of some of the most respectable inhabitants of the town, and where the sanitary condition generally speaking could not be complained of.

While it is to be observed that the late outbreak of cholera was most unquestionably more severe than any previous one in the town, it was not more so than *previous outbreaks in other places*. The greater severity appears to have consisted rather in the greater extent of its attacks than in the greater malignancy of them; and yet, this greater severity is most strikingly exemplified when the mortality is compared with the previous visitation. In the first nineteen days of 1831, the number of deaths was 91, and during the same period in 1853, the number was 557, being an excess of 466. It is also manifest from the consideration that the first visitation extended over nearly twelve months in 1831, and the mortality scarcely exceeded

800, while that of 1853 expended its virulence two months, and the mortality was 1,533. Had not been for the effective efforts of the authorities and the prompt and unremitting labours of the medical profession, and the valuable aid of medical inspectors of the London Board of Health, R. D. Grainger, Esq., and Dr. Gavin, and the benevolent exertions of the inhabitants generally, there is no doubt, but that the sacrifice of life would have been much more extensive and severe.

It is impossible to describe the anxiety of feeling and the deep forebodings of the people during the intensity of the disease. When the mortality ran for a few days upwards of a hundred per day, a deep gloom settled on the minds of the people; there is little doubt but that the almost universal trepidation which prevailed, acted as a powerful promoting cause to intensify and extend the epidemic in its earlier stages. The following tables will best illustrate the progress and decline of this direful pestilence.

It may be worthy of remark, that the numbers in the following tables give, on the basis of the Census of 1851, viz., Newcastle, 87,784, and Gateshead, 24,807, an equal ratio of mortality, that is, in fifty-seven in each town.

Table showing the number of deaths as they occurred during the epidemic, distinguishing males and females in Newcastle.

TOTAL.					TOTAL.				
	Male.	Female	New-castle.	Gathead.	Brought Forward.	Male.	Female	New-castle.	Gates-head.
September 1	1	5	6	1*		662	755	1417	405
2	0	0	0	3	October 4	4	5	9	1
3	3	1	4	1		5	4	10	2
4	3	3	6	0		6	5	10	1
5	4	3	7	4		7	4	7	2
6	4	1	5	1		8	3	8	1
7	0	3	3	3		9	1	2	2
8	9	7	16	3		10	1	2	1
9	7	12	19	6		11	1	2	0
10	8	11	19	8		12	3	6	1
11	16	15	31	11		13	1	4	2
12	12	26	38	18		14	2	5	1
13	32	27	59	18		15	1	4	1
14	42	48	90	32		16	3	6	1
15	54	52	106	39		17	4	8	0
16	56	58	114	30		18	3	5	0
17	47	56	103	27		19	1	3	0
18	46	57	103	29		20	0	1	2
19	44	67	111	19		21	0	3	1
20	38	47	85	18		22	0	2	0
21	29	39	68	22		23	1	2	0
22	42	40	82	14		24	1	3	1
23	30	30	60	15		25	1	2	0
24	30	26	56	12		26	0	0	0
25	35	21	56	24		27	0	0	0
26	15	19	34	9		28	1	1	1
27	12	22	34	11		29	1	1	1
28	12	14	26	3		30	0	0	1
29	7	11	18	4		31	1	1	0
30	6	6	12	3	Nov....	1	0	0	1
October 1	6	8	14	10		2	1	0	2*
2	3	12	15	6		3	0	0	1*
3	9	8	17	1		4	0	1	1*
	662	755	1417	405	Total	710	823	1533	433

* These occurred August 31, and Nov. 5, 7, and 11.
For Newcastle, see Commissioners' Report.
 — Gateshead, see Mr. Clephan's 'Cholera Epidemics'.

TABLE showing the NUMBER of DEATHS from CHOLERA, and the rate of Mortality in each Parish and Township.

Names of Parishes and Townships.	Total of Deaths in each Parish.	Population of each Parish.	Rate of Mortality in each Parish.
Saint Nicholas' Parish*	113	5361	1 in 47
Saint John's ditto†	229	9858	1 in 43
All Saints' ditto	450	26,110	1 in 58
Saint Andrew's ditto	251	15,639	1 in 62
Westgate Township	291	16,479	1 in 57
Byker ditto	132	7040	1 in 53
Elswick ditto	43	3538	1 in 82
Benwell† ditto	13	1271	1 in 98
Jesmond ditto	11	2069	1 in 189
Total	1533	87,385	1 in 57

CHOLERA.

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CLASSIFICATION AS TO AGES.

TABLE showing the NUMBER of PERSONS who DIED of CHOLERA of the following AGES, in NEWCASTLE UNION, 1853.

Names of Parishes and Townships.	AGES, in NEWCASTLE UNION, 1853.													Total.
	1 to 5 years.	5 to 10 years.	10 to 15 years.	15 to 20 years.	20 to 25 years.	25 to 30 years.	30 to 40 years.	40 to 50 years.	50 to 60 years.	60 to 70 years.	70 to 80 years.	80 to 90 years.	90 to 100 years.	
Saint Nicholas' Parish	17	3	3	10	8	3	20	10	21	13	4	1	...	113
Saint John's ditto	29	9	5	15	12	18	44	33	32	21	10	1	...	229
All Saints' ditto	93	20	16	15	36	12	67	74	55	39	16	7	...	450
Saint Andrews' ditto	32	13	5	6	13	13	43	28	37	39	18	4	...	251
Westgate Township	46	22	12	14	12	19	45	33	47	27	14	...	...	291
Byker ditto	33	9	6	3	6	6	25	16	10	8	9	...	1	132
Elswick ditto	3	3	4	3	1	2	8	5	5	3	5	1	...	43
Benwell† ditto	2	...	...	1	2	...	3	1	2	2	...	...	...	13
Jesmond ditto	1	1	...	...	...	2	2	2	...	3	...	...	...	11
Total ...	256	80	51	67	90	75	257	202	209	155	76	14	1	1533

† N.B.—The Township of Benwell, although within the Poor Law Union, is without the borough of Newcastle. The fifth township within the borough of Newcastle is Heaton, and in this no mortality from cholera took place.

It is not to be inferred from the details of the epidemics we have enumerated, that Newcastle, Gateshead, and their localities, are less healthy than other large towns; and we desire to correct the erroneous opinion which so generally prevails in reference thereto. It appears that the mortality of Newcastle, among every thousand inhabitants, on the average of the past *fifteen* years, has been 28.6; Leeds, 28.5; Hull, 29.8. And, although no *two* towns, that is, no two *large* towns, will give an exact identity of circumstances, yet considering that these afford as good a criterion as the nature of such comparisons will possibly admit, we infer, that if the mortality in Newcastle does not exceed the average mortality of these towns, then Newcastle is not generally in a less healthy condition, and ought not to be causelessly and unjustly depreciated in public esteem.

It appears that during the prevalence of the calamity the Board of Guardians incurred an expense of nearly £4,000 for immediate service; that between £6,000 and £7,000, were collected by the Vicar; that an excess of £3,000 was incurred by the Benefit Societies for funeral moneys; that £500 was expended by the Town Council; that an annual expense of £2,600 has been incurred by the Board of Guardians, for the maintenance of widows and orphans, which, at only eight years' purchase, would be worth £21,000, making altogether a loss of £35,000; and there may also be taken into the account, but

not so obviously calculated, the serious loss to the town from stoppage of trade and other incidents.

We have now only to add, that these cholera visitations are classed by medical authority amongst *preventible* diseases. If so, however much the past may be regretted, it involves the most serious responsibility on those whose duty it is to take heed for the future. Three things seem to be necessary to the existence of cholera ; *first*, the hidden principle of the disease ; *second*, an atmosphere in which to locate itself ; and *third*, a susceptibility in the patient. The *second*, being the connecting link in the chain, is subject to control by proper sanitary measures, by personal attention, and social arrangements.

Let, therefore, temperance and virtue guide the life, cleanliness and economy characterize our domestic arrangements, and proper sanitary regulations be duly enforced by the governing authorities of the cities and boroughs of England, and our country may be freed from the dire calamities of this modern plague.

FLOODS.

“Fire and water are good servants but bad masters,” says the old proverb ; and the local records of Newcastle bear ample testimony to its truth. A considerable portion of the town in ancient time

occupying low ground, was subjected to inundations whenever the Tyne overflowed its banks; and the extent of them may be better understood when it is known, that formerly the river ordinarily flowed above the *Nether Dean Bridge*, (*i. e.*, the Low Bridge) which crossed the middle of Dean Street; and that boats were moored by their painters to the heugh or hill—and so called Painter Heugh, a little lower down the same street. It is also recorded, that in 1644, at the siege of Newcastle, General Lesley brought his heavy ordnance by sea to *Blyths' nook*, from whence they were dragged up to the camp. Being thus so surrounded with water, it makes it a matter of little wonder that the town was so frequently overflooded.

The first inundation we read of, was in 1339, when a great part of the town extending along the Quay was thrown down, and *one hundred and sixty-seven men and women* were drowned. It appears that the bridge was so considerably damaged, (part being carried away,) as to be reduced to a ruinous condition. The river was also swollen to a prodigious height in 1752; and such was the impetuosity of the current, and the violence of the wind, that all the ships in the harbour at Newcastle were driven from their moorings. In 1763, there was such a prodigious swell in the river, that it rose three feet higher than ever previously known, and the Close, Sandhill, Quayside, and low parts of

Gateshead, were overflowed, and the damage done, was computed at upwards of £4000.

THE GREAT FLOOD.

In 1771, was emphatically the GREAT FLOOD, when the river rose six feet higher than it had done in 1763; and so sudden and rapid was the rise of the water, that it was with the greatest difficulty the inhabitants who slept in the lower part of their houses escaped with their lives. This flood is remarkable for having carried away the greatest portion of the Tyne bridge, with the houses and shops thereon, and rendering it a complete ruin. Several people perished, and many were the miraculous escapes and deliverances. The water rose twelve feet above high water-mark, and was six feet deep upon the Sandhill. This flood spread desolation throughout the whole course of the Tyne; from Tynehead at Alston to Tynemouth, not a village situated on its banks escaped its destructive fury; many people were drowned, and great was the loss of property, farm produce, and stock. The only bridge left standing after the flood abated, was that at Corbridge. There was a great flood in the Tyne, in consequence of a rapid thaw, accompanied with wind and rain, in 1815, which was supposed by some to have done almost as much damage to property as the great flood of 1771, though it did not rise to so great a height, neither was it attended with so great a loss of life. Other floods have subsequently occurred,

all less or more destructive of life and property, but none to the extent that would place them in a category of calamities.

FIRES.

In chronicling the casualties of fire which have occurred in Newcastle, it is only designed to observe upon those which have been marked by such peculiar incidents as give general interest to their details. And, by way of preliminary, we state that the first fire on record, is that of St. NICHOLAS' CHURCH, which is said to have been destroyed in 1216 ; though no particulars are given save the record of the fact by the local historians. In 1248, a great part of the town with the bridge, (which being constructed of wood,) was destroyed by fire ; and, as bridges and roads were as important then as now, it was considered an act of piety in those days to contribute to their erection or repair. The Bishop of Durham, granted indulgences to those who aided him in the repairs of ~~his~~ portion ; other Bishops aided the authorities of the town in like manner. Among others, it is stated that the bishop of Caithness, in Scotland, gave liberty by a grant to collect alms throughout his whole diocese ; and the bishop of Waterford, in Ireland, granted a promise of being prayed for in the Cathedral Church and other churches of his diocese, to those who did

assist the repairing of the Tyne bridge. While such mode of raising contributions may have involved something more, both in principle and practice, than is to be attributed to our modern church collections, we cannot the less appreciate the spirit of an extended practical benevolence which is so obviously manifested.

It is recorded, that in the year 1349, Newcastle was nearly destroyed by fire ; but, the authority is doubted. This year, 1639, part of the old Exchange was burnt, with the town-clerk's office. The Exchange was re-built in 1658, and the fire is now principally to be regretted, as by it several of the ancient deeds and writings of the Corporation were destroyed. During the siege of Newcastle in 1644, *the inhabitants set fire to Sandgate*, with a view of protecting the town, by preventing the Scottish army under General Lesley making their advances under cover of the houses ; and many are of opinion that it is not less imperative now-a-days, to destroy Sandgate, from a parity of motive, in order to save the town from the advances of a more insidious and not less fatal enemy—*General Cholera*, and his subalterns of fever, scarlatina, and other forms of epidemic disease.

✓ In 1725, a fire broke out at the house of Mr. Partis, merchant, Head-of-the-Side ; where, by the *explosion* of a barrel of gunpowder, *twelve* persons were killed, and about *one hundred* more or less wounded. The premises being situated near the

south door of St. Nicholas' Church, it is said that one person was blown on to the leads of the church, and all the windows in the neighbourhood were broken; it is added that the blast extinguished the fire. In 1750, a destructive fire took place in the Close, supposed to be occasioned by a brewhouse furnace being contiguous to a merchant's warehouse; the partition being but a few inches thick, and the bricks becoming intensely heated by the flame of the furnace, some combustible goods in the warehouse took fire, which spreading through the cellars burst with violence into the open air before discovered. Ten dwelling houses and a great many warehouses were entirely destroyed, the damage being computed at £10,000; a liberal subscription was raised for the relief of the sufferers.

In August 1799, a fire broke out in a warehouse belonging to Mr. Bulman, saddler and ironmonger, which raged with great fury. During the conflagration, the proprietor informed the assistants that there was a quantity of *gunpowder* in an upper warehouse, when two intrepid fellows mounted a ladder, and passing through a window entered the apartment where it was placed, within a few inches of burning matter, and safely lodged the barrels in St. Nicholas' Church.* A few more minutes delay might have endangered the lives of many of the multitude, as the shop and warehouse were

* The wisdom of having so placed it may well be doubted.

situated in the same range of buildings in which Mr. Partis's dreadful fire and explosion occurred.

In 1820, a dreadful *explosion* of Gas took place in Forth Street, by which several persons were severely injured. On January 6, the family of Mr. Benjamin Slater were much annoyed with the smell of Gas ; information was given to the proper persons at the Gas Works, but, as the gas-pipes in the front street had no communication with the house, they engaged to remedy the inconvenience the next day. In the evening Mrs. B. Slater, sitting in the parlour with a friend, had occasion to direct her daughter to look into a closet for something she wanted, when a violent explosion took place, by which the upper part of the house and the back part of the house adjoining were blown out and destroyed. Mrs. Slater was much hurt, a young child was forced from her arms into the fire-place, and her daughter was most sadly scorched. More serious injury was sustained in the adjoining house occupied by Mr. John Slater, who had that evening a party of friends at his house. The room in which they were was quite demolished, and they were so crushed among the ruins that it was some time before they could be extricated. Mrs. John Slater, had both her ankles put out ; Mrs. Debnam, who was one of the party, had both her ankles put out, her arm broken, and her baby killed in her arms. Other individuals were also injured from the violence of the explosion. Mr. Debnam brought an

action against the Gas Company and obtained £460 damages.

Many other fires have occurred in Newcastle, of much greater magnitude than those recorded, involving loss of property to the extent of thousands, and some of them even of tens of thousands of pounds ; but, as they were not attended with any peculiar circumstances beyond the ordinary course of such conflagrations, nor marked with any serious amount of loss of life, we do not deem it needful to particularize them ; except, as it were in passing, to record the fact of the *fire* in the Savings' Bank, in 1838, usually denominated the *Arcade tragedy* ; with which was connected the death of Joseph Millie, and the transportation for life of Archibald Bolam, on being convicted of the manslaughter of Millie. Although, perhaps, no local circumstance of the like kind ever excited such universal interest, yet the peculiar circumstances are too minute and diffuse to enumerate ; and, moreover, as they have no bearing, or relative characteristics, with the great calamity to which we have designed the preceding to be introductory, we pass them by, and proceed to give a succinct, and as comprehensive an account of the late great calamity, as our space and the importance of the details demand.

The Great Fire.

We have in the preceding pages educed, in part, the evidence of the antiquity of Newcastle-upon-Tyne—appending a summary of its leading historical events; and have essayed, in a very general description, to convey an idea of its present advanced social and commercial position. We have also recorded the appalling mortality of its epidemics—the pestilential visitations which anteceded the GREAT PLAGUE, and the subsequent fatality of the late outbreak of CHOLERA. And, having briefly adverted to the inundations which preceded the desolations of the GREAT FLOOD, we now proceed to detail the particulars of what may be pre-eminently distinguished, and emphatically designated, the GREAT FIRE,—there being none to parallel the late calamity in the amount of its casualties, nor in the extent of property destroyed, in the past history of these northern localities. In pursuance of our object we purpose, by collating the various published accounts, to give the particulars of the event in the order they transpired, so as to present one continuous and connected description of the whole.

NEWCASTLE AND GATESHEAD.

From the geographical position of the towns of Newcastle and Gateshead, a close political, commercial, and social relationship have necessarily sub-

sisted throughout the whole course of their by-gone history. Newcastle being situated on the north banks of the Tyne, occupying an extended river frontage, and Gateshead occupying a parallel position on the opposite banks, the two towns have been locally identified as *one* in history and progress, and are now equally and alike involved in one common calamity.

THE GATESHEAD FIRE.

Our readers will be aware, from our previous description, that the river is spanned by two bridges from nearly one and the same point—the old substantial stone bridge, and the light and lofty modern iron structure of the High Level,—thus combining the two towns in one, as firmly as iron and stone can unite them; and while auxiliary to the common interests, welding more firmly the still more binding and enduring links of social intercourse and commercial prosperity.

In order the better to understand the scene of the destructive fires, we may observe that the buildings on the Gateshead side of the river, below (as above) the bridge come down to the water's edge, and form a closely compacted block of buildings, extending considerably down the river, and back up to the Church. These are intersected by a long narrow street named Hillgate, running parallel with the river, and only of sufficient width to allow ordinary conveyances to pass on to the warehouses and

manufactories, which chiefly formed the lower side of the street ; the houses on the south side being densely occupied in numberless tenemented dwellings, with the exception of Mr. Davidson's extensive and valuable steam flour mill, which was subsequently destroyed by the fire.

THE WORSTED MANUFACTORY.

A few yards below the end of the old bridge, stood the worsted manufactory of Messrs. Wilson and Sons ; a firm which adds in its history another instance to the many in this immediate locality, wherein success has crowned industrial efforts, upright dealing, and persevering application to business, and raised the respective members of the firms to positions of credit and respectability. Messrs. Wilson and Sons, had been so unfortunate as to have their manufactory, which occupied the same site, destroyed by fire about three years ago. And, in consequence of a negotiation being entered upon with the authorities of Gateshead for the purchasing of the ground, with a view to its being made the commencement of a public quay, (the site extending from the river to Hillgate,) the re-erection of the building was delayed for a considerable time, and had only been lately re-built on an extended scale, on the most improved plan, and in the most substantial manner. About half-past twelve o'clock on the morning of Friday, October

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BERTRAM'S WAREHOUSE, WORSTED FACTORY, ETC.

6th, 1854, the mill was again discovered to be on fire. The alarm was immediately given, and although it was midnight when the cry was raised, the streets were instantaneously crowded with people hurrying on to the scene of conflagration. As the fire had originated in the upper rooms of the building, an attempt was made to save such of the stock as was in the lower apartments of the mill; but the quantity of oil on the premises, which being used in the ordinary process of manufacture, and distributed with the machinery throughout the building, added fuel to the flame, so as to render such attempts of but little avail. The fire raged most fiercely, and such was the rapidity of its progress, that, notwithstanding the prompt attendance of the firemen with the North British and Newcastle fire engines, the active efforts of the police, the strenuous exertions of the authorities, and the ever ready help of the by-standers, in less than an hour from its first outbreak the premises were one mass of flame. The fire continuing to spread with increased impetuosity, in about two hours the roof fell in, and the building was a total wreck.

BERTRAM'S WAREHOUSE.

Great personal loss of property would have ensued had the damage even ended here. But, in the immediate neighbourhood of the fire was a large

warehouse, built about twelve years ago by Mr. Charles Bertram, as a bond warehouse, and generally known by the name of *Bertram's Warehouse*; but for the last three years it had been in the hands of the County Fire Office, of which Mr. Sisson, (of the firm of Currie Brothers and Sisson,) is the agent, for the mortgagees in possession. The building was extensive, and substantially constructed, rearing its height to seven stories, and covering an area extending from the river, towards which it had one frontage, to Hillgate on the north side, and having a corresponding breadth, was capable of holding an immense amount of goods. It was at the time of its destruction used by the merchants of Newcastle and Gateshead, as a *free* warehouse; and was stored with some *thousand tons of sulphur, nitrate of soda*, and other combustibles. From its proximity to the worsted manufactory, the intense heat of the fire soon caused the sulphur to melt, and as it streamed in a burning liquidized state, from the windows, its blue sulphureous flame had a most remarkable and indescribable effect.

Although the warehouse was in part "a double fire-proof structure," most thoroughly and strongly built, having its floors supported by heavy massive metal pillars, with every due precaution adopted to guard against the casualties of fire, yet it soon appeared to be beyond human possibility to prevent the flames communicating with the vast store of com-

bustible materials within its walls. The firemen and authorities seeing the entire ruin of the worsted factory, directed their efforts to save the warehouse, being shortly after re-enforced by the military with their fire engine from the barracks ; but the widely scattered burning brands from the fallen roof of the factory, giving additional stimulus to the flame of the liquidized flowing sulphur, rendered every attempt utterly abortive ; and in spite of immense exertion to stay the progress of the fire, it spread with uncontrolled rapidity and soon enveloped the whole premises in one sheet of flame. The warehouses were full eighty feet in length by twenty feet in width, and seven stories high, and at three o'clock when the whole range was one body of fire, the sight was one of the most awfully magnificent which can well be imagined. The sulphurous blaze illumined the river and its shipping, the Tyne, the High Level Bridge, the Castle, and the Steeples of All Saints', St. Nicholas', and St. Mary's, and every other surrounding prominent object, with its lurid purple light. From the various floors of the warehouse the sulphur flowed in torrents like streams of lava, and the building resembled 'a cataract on fire' ; yet, up to this time, the occurrence had borne no other aspect than that of a fearful blaze—a tremendous conflagration, sufficiently serious of itself, and altogether unprecedented in the annals of the district.

So large a fire naturally attracted an immense number of spectators, and excited an unspeakable interest; the bridges, the quays, the shipping, the river with boats, and every available spot that could command a prospect of the scene, were crowded with eager gazers on the exciting spectacle. An elevated wooden erection, formerly used as a coal staith, added fuel to the fire, and for a time shared with the warehouse the attention of the astonished and wondering multitude. The extent of the fire rendered the exertions of numbers needful to abate its destructive fury, or to stay its further course, so that its immediate location was thronged with willing, fearless hearts, directing heads, and laboring hands.

THE EXPLOSION.

As the flames progressed, the excitement amounted to intense anxiety, and activity in effort was redoubled. A slight concussion warned the thickly gathering crowd, that there was something more perilous than sulphur alone in the burning pile; but it was as natural to suppose, that with the shock the danger had passed away, and the labors of the firemen were unrelaxed, and the efforts of the people were unremitting. It is to be regretted that a second slight explosion, as an additional premonitory admonition, did not immediately warn of the numerous firemen and the surrounding crowd; but none foreboded the awful calamity that was about to follow; and even warnings thrice repeated

failed to awake the thought of danger, and so passed by alike unheeded. After a few minutes had transpired, these misinterpreted and disregarded intimations received their vast and terrible fulfilment. The vaults of the warehouse were burst open with a tremendous and terrific explosion. The strong masonry of the walls, and the firm earth of their foundations, were torn up as by the ploughshare of destruction. The air was rent as with the voice of many thunders, and filled as with the spume of a volcano. The rocky basis of Tyneside trembled—and the heaving river lifted the vessels on its bosom as if lashed to instant fury by some sudden storm. The olden bridge shook as if its firmly compacted stones, which time had knit together, would have parted from each other in the throes of an untimely dissolution. And the iron-bound High Level, as it met the force of the convulsion, quivered on its lofty piers, as in a mighty struggle for a prolonged existence. So tremendous was the concussion, that its vibration and resound were heard and felt by sea and land, from twelve to twenty miles beyond. Massive walls were crumbled into heaps,—blocks of houses tumbled into ruins,—the buildings at the confines of the towns were shaken as by the heavings of a pending earthquake. The venerable pile of the Parish Church was rent and shattered to a wreck,—and the hands of the dial stood ten minutes past three o'clock, to record as it were the true time of this terrible catastrophe. The grave-stones of the an-

cient church-yard were broken and uplifted, as if the trumpet of the resurrection had been sounded. A thick black darkness rose, as a 'pillar of cloud,' from the caverns beneath, overshadowing the scene,

"And the angel of death spread his wings on the blast,"
And silence reigned supreme.—

That fearful darkness was almost instantaneously dispelled by the lighting up and dispersion in mid-air of the flying, blazing, burning brands of the irruption; and that dread silence was broken by the noise of falling dwellings rushing to their ruin—by the moans of the dying—the cries of the injured—the shrieks of the distracted—the struggle for life—and the wail of despair!

The astounding event confounded and appalled and paralyzed the multitude, and an unconscious stagnant stupor of astonishment universally prevailed. Those who were within the immediate range of the overwhelming blast, were forcibly struck down or dashed with impetuous violence against the nearest projection. In the crisis of the catastrophe, the first returning thought of recovered sensibility was to fly for refuge; but, in the emergency of the moment, the intrepidity of the people rallied, and the most undaunted efforts were put forth, amidst the tumbling ruins of the buildings, and the falling debris of the conflagration, to rescue the dying and the dead,—to succour the distressed,—and to aid the injured. The fumes of the burning sulphur, the suffocating smoke of the fire, and the strongly impregnated noxious

gases of the exploded materials, as destructive to the life of the sufferers as the pressure of the ruins under which they lay entombed, made it not less riskful to their deliverers ; rendering it almost impracticable to extend the help the urgency required. But the higher impulses of humanity impelled their efforts, the naked and the houseless found help and shelter, and the disfigured and mangled remains of the dead, as they were extricated from the ruins, were borne to the police station ; numbers of the injured were taken to the Gateshead Dispensary ; and upwards of one hundred of the seriously disabled were conveyed in carts, on boards, and window shuts, to the Newcastle Infirmary, about sixty of whom were received into the house, the others having their wounds promptly attended to, were removed to their own homes.

THE NEWCASTLE FIRES.

The projectile power of the explosion had, in the meantime, borne the burning embers of the Gateshead fire across the expansive river with an irresistible force, and showered down upon the shipping and the devoted property in Newcastle, a deluge of sulphurous liquid fire and flaming brands. The spectators on the Quay were scattered as chaff before the dreadful simoom ; and the buildings were rocked on their base, and rent to their roofs, as if opened and prepared for the reception of the burning materials

as they rushed down *en masse*; and the dense range of shops, offices, and warehouses, used by the merchants of Newcastle, extending to upwards of a hundred yards of frontage, including in their square the closely packed Chares or Lanes to Butcher Bank and Pilgrim Street, were in an incredibly short time one huge mass of desolating flame.

The entire strength of the fire brigades of the local offices, and the disciplined aid of the military force, had been wholly directed to the Gateshead fires. The explosion had put the fire engines *hors de combat*; the stand-pipes and many of their efficient men lay buried in the ruins, or were so disabled as to be unfit for further help; and now was there a new and more extensive conflagration in Newcastle, ready to task their over-wearied powers and make fresh demands upon their exhausted energies. But, even though all things had been in readiness, it was too palpably manifest the utter impotency of human power to stay the destructive element which raged with frightful vehemence, and reduced to irremediable ruin whatever property it preyed upon.

While the immense devastating power of the conflagration was uncontrollably urging on its way, as if to increase the consternation, and if possible to add to the almost universal bewilderment of mind, another fire was lighted up, proceeding from the same cause, in the workshops of Mr. Edgar. These being connected with a densely packed clump of

tenemented dwellings, situated in a space enclosed in a triangle, the sides of which are formed by Pilgrim Street, Butcher Bank, and George's Stairs, and the fire blazing up amidst them with unimpeded power, gave threatening indications that it would envelop and consume the mass. Meanwhile, the Quayside fire had wrought its way amongst the closely piled buildings which lay behind, and extending its ravages to Butcher Bank and Dog Bank, reached the paper warehouse of Mr. Temple, and the furniture warehouse of Mr. Piper. These were as so much ready prepared fuel, stored up for the all devouring fire. In less than half-an-hour, Mr. Temple's premises were wrapped in one perfect sheet of flame; and with so much violence did the fire rage on at Mr. Piper's warehouse, that it would have been utterly in vain and folly to attempt to check its onward course.

SCENE FROM THE HIGH LEVEL.

Thus were three great fires in their ungovernable might raging with fury at one and the same time. Two of them, in all probability, far transcending in magnitude, and unparalleled in their destructive consequences, by any like event in these northern counties, either of them more than sufficient of itself to over-tax the utmost energies of human power. Viewed from the heights which enclose the banks of the Tyne, the lower portions of the towns presented

the aspect of a burning cauldron; and as the smoke ascended, there appeared to be in reserve for Newcastle and Gateshead, the fate which befell 'the cities of the plain.' Viewed from the advantage stand of the High Level, the scene combined the elements of greatness, grandeur, and sublimity. There lay spread out in this unwonted scene, the deep dark current of the river passing rapidly yet smoothly on, strangely illumined, and powerfully in contrast with the red glare which shone around. The crowded mass of human beings who thronged the lower bridge, every one of them intensely excited by the progress of the flames, which, on the right and on the left, were towering up and rollicking on—leaping from house to house—from lane to lane—and street to street, as if the spirits of a fiery desolation were holding a high carnival,—the fires spreading their flickering lurid light upon the remotest objects within their wide circumference. The ancient pile of St. Mary's Church, from its elevated site, bordering the prospect on the south, and the lofty modern spire of All Saints' skirting the view on the north; while the elements of nature were at rest, and all was calm—the river unrippled by a wave—the atmosphere scarce ruffled by a breath; and the moon in full orb'd brightness, veiled by the immediate density of the conflagration, shedding its pale and silvery light on the distant margin of the scene.

The night was spent in terrible anxiety and extraordinary effort. The fires, from hour to hour, rampantly progressing and irresistibly bearing down everything which came within the range of their power, and, apparently, only eventually checked in their course by providential arrangement. But, though checked, the time was not yet come for relaxed endeavors. In the transition hour, when human skill was about to gain the mastery over the all-conquering element, then was made manifest the greater necessity for redoubled exertions to hold in check and ultimately to subdue the hitherto uncontrollable power of evil. It was then that the men of authority and influence, on both sides of the water, rightly estimating the true value of such opportunity, might be seen putting forth their energies, and directing by their better knowledge and superior judgment, the means adapted to make sure the end.

INDIVIDUAL EXERTIONS.

The authorities of Gateshead had been on the alert from the first alarm of fire. The worshipful the Mayor, D. Haggie, Esq., was indefatigable in the prosecution of his efforts, and was himself in the most extreme peril of being buried in the ruins. Various other men of mark in connection with the Council, and members of the Board of Guardians, were also most assiduous in their exertions. The

police force were actively superintended by ~~the~~ Scorer; and the fire brigades of the Newcastle and North British fire engines, in their adventurous calling and arduous labor, were ably directed by the experienced judgment of W. Woods, Esq., who was himself in imminent danger at the Gateshead fire, and most remarkably preserved. The officers of the garrison, Captain Hussey and Ensign Paynter, undauntedly aided the zealous exertions of the military, until they were *en masse* destroyed or seriously disabled by the explosion.

When the two towns were involved in one common calamity, the authorities of Newcastle were immediately sensible of the onerous responsibility of their position, and were not less prompt or less vigilant in the adoption of the most effective measures to stay the wide spreading conflagration. The Right Worshipful the Mayor, Ralph Dodds, Esq., with his prompt and manly energy, might be seen in action in every direction; and C. E. Ellison, Esq., stipendiary magistrate, R. Plummer, Esq., and other influential members of the Council, were not less eminent in effort in the hour of peril and exigency. Indeed, it is generally ascribed to the calm collectedness of mind of R. P. Phillipson, Esq., the wisdom and precision of his directions, and his untiring energy, that we are mainly indebted for the efficiency of the measures adopted. W. Woods, Esq., was also to be seen (after his hair-breadth escape) superintending the operations of the fire-

men, marked with the same unassuming firmness of conduct and quiet intrepidity, which had characterized his services at Gateshead. The invaluable labors of many we must necessarily pass at a time when immediate demand was made upon the exertions of all; for, it is in the crisis of great emergencies that the latent powers of character are developed, and which had innumerable instances of exemplification in this especial time of action.

GENERAL EFFORTS.

As soon as the telegraphic wires could be made to work (for they had been deranged by the influence of the explosion) messages were dispatched to all the neighbouring towns desiring immediate assistance. The messages were most promptly responded to by the several authorities, and fire engines were forwarded by the most expeditious modes available, from Durham, Hexham, Carlisle, Morpeth, and Berwick; the floating engines of Shields and Sunderland, and also three other engines from the latter place, were immediately dispatched. By the acquisition of these to the several engines from the various establishments in the neighbourhood, and their being an abundant supply of water from the pipes of the Water Company, and an inexhaustible supply from the contiguity of the river, there was soon an amazing amount of preventive power to hold in check the further progress of the flames.

Mr. Dunne, superintendent of police, was unremitting in the discharge of his public duties, and well nigh fell a sacrifice in the course of his efforts. He was energetically supported by his Superintendents and his men, in the maintenance of order, a point so important at all times of public excitement. A number of police were also draughted in aid of the same object from the neighbouring towns; Mr. Stephens, superintendent of the river police, having the command of the floating engine, also rendered effective service. Owing to the serious injuries sustained by the military at Gateshead, detachments were ordered from Tynemouth, Sunderland, and Carlisle, which arrived by the earliest trains. By such extended arrangements, devised in wisdom and executed with promptness, the public authorities being aided by the effective co-operative help of the ready relays of willing laborers, the measures adopted were so far successful, that the pressing cause of immediate and extending danger was generally subdued and overcome.

RENEWAL OF THE GATESHEAD FIRE.

In the course of the day, there were several minor outbreaks of fire, which required the most vigilant attention to keep in abeyance. Those in Newcastle were comparatively but the flickering and expiring efforts of the great catastrophe; but in Gateshead, shortly after noon, a renewal of the conflagra-

tion was occasioned by the blazing lava from the warehouse, making its way in a stream to the delapidated and ruined premises in the vicinity. It communicated the igneous impulse to Mr. Davidson's flour mill, as if to terminate by fire the destruction which the explosion had commenced. For several hours did the fire in the mill prevail, till, despite the streams of water thrown upon the pile, it was totally consumed; leaving the towering walls and the lofty chimney, the sole relics of this vast and substantial building. The same agency which had led to the conflagration of the mill, renewed the fire along the entire property to the east of it. As yet, this range had mainly suffered from the explosion. The fire was now to complete the demolition; and, as night closed in, and, for several hours, it raged with terrific fury, until not only the entire block of houses between Hillgate and Church Walk, had been destroyed, but the Church Walk itself, along nearly its whole extent, was in a blaze; and the fine old church of St Mary, for awhile seemed doomed to destruction. After midnight, a cry was raised that the church was on fire; and never was a church in more imminent danger, for the smoke was seen to issue from the roof and a reddening glow to brighten. The customary confusion of voices prevailed; at length, the voice of Mr. Mather, of South Shields, was heard proceeding from the broken windows, and an engine pipe being handed to him, and also an axe for which he called, by his timely aid the danger

was eschewed, and the venerable edifice rescued from the power of the insatiable element. In the emergency, it was resolved to blow up some of the already shattered houses to the East of the fire, thereby breaking the connection between the properties—a duty which was promptly fulfilled by a party of sappers and miners. The powerful floating engines on the river were brought into play, and vigorous preventive measures being adopted on the West, the fire was prevented extending its ravages in Bridge Street; and, being now contracted in the sphere of its operations, the fire at length was stayed and finally subdued. Thus was extinguished the most calamitous and the most destructive conflagration which has ever occurred in connection with the cities and boroughs of the Northern Counties.

VIEW OF THE RUINS.

Having marked the primary events, and connectively detailed the important circumstances of this terrible catastrophe, and, also, faintly traced the outlines of the impressive spectacle of this vast conflagration, as it raged in the irresistible fury of its devastating power, when viewed in the gloomy darkness and sublimity of the scene from the lofty height of the High Level, we would now briefly review the extent of property destroyed, and the solemn fatality to life which the explosion involved.

The narrative form of this description renders it undesirable to enter into the minutiae of details, and therefore we only purpose here to notice the general effects.

GENERAL EFFECTS.

Besides the less serious damage to property in the outskirts of the towns, the explosion marked the immensity of its power on the properties more immediately within the range of its effects, by the blowing off of roofs, throwing down of walls and gable ends, the breaking down of stair-cases, shattering doors, demolishing windows, frame-work, and sashes, making complete havoc of the property it did not entirely reduce to ruins. So wide-spread was the damage, that scarcely a house in the middle and lower parts of *Newcastle* escaped in this mighty convulsion. On the Sandhill, nine out of every ten of the shop fronts and house windows were completely blown out. In the Side, Dean Street, Mosley Street, Collingwood Street, Grey Street, Market Street, and Pilgrim Street, and even in Clayton Street West, were the same effects to a considerable extent observable. Iron bolts were snapt as withes before the stroke, and iron bars were bent as on the anvil of the forgerman. In *Gateshead*, the like effects were almost universally produced, in Pipewellgate, Bridge Street, Church Street, Bottle Bank, Canon Street, Oakwellgate, and streets

beyond ; but it would, indeed, be idle to attempt an enumeration of the individual diversities in this brief portraiture.

THE RUINS FROM THE CHURCH WALK.

As the High Level afforded an advantaged position for beholding the terrible scene of conflagration, so the high ground of the Church Walk, overlooking the immediate theatre of fire and convulsion, presented the most eligible point for surveying the vast ruins of this extended desolation.

But who can describe the deep anguish and sorrow,
 'The sighs and the tears that were poured on the morrow,
 When the horrible sight of destruction was past,
 And the dawn sadly lighted the desolate waste.

There had burst from the deep yawning cavern beneath,
 A torrent of fire—the liquid of death ;
 Like the dire flaming flood of the terrible rain,
 Which the Lord on his wrath poured on Sodoma's plain.

From this position, the eye engrossed at once the whole sphere of devastation ; and looking down into the depths beneath, there lay hidden by the sulphurous smoke of the burning *debris*, the arcanum of destruction,—the secret centre of convulsion,—by the mighty throes of which, this melancholy ruin had been wrought. In immediate contiguity lay the rubbish of the property which had been subjected to the combined action of the fire and the concussion ; and, in consequence, the destruction was more thorough

and complete. The force of the irruption had utterly demolished the vinegar manufactory of Messrs. Singers, which was to the eastward the limit of its direct destructive doings. From thence towards the bridge on the west, for upwards of one hundred yards, and backward to the embanked tenements of the Church Walk, lay the ruined vestiges of this disastrous calamity.

Expanding the vision across the Tyne, there lay the counterpart of this sad scene. On a parallel from the Custom House to the west end of the Quay, and stretching northward to the Butcher Bank, Dog Bank, and Pilgrim Street, there was made up one vast area of delapidated buildings, presenting to the view all the destructive phenomena of some terrific bombardment and fiery visitation. There stood in the distance with imposing effect the lofty spire of the beautiful structure of All Saints', which had not passed scathless in the conflicting hour. There was also the important pile of the Exchange, bearing distressing evidence in its wretched estate of the terrible power of the dreadful convulsion. The massive buildings of the Moot Hall, placed with marked prominence on the brow of the castle hill, amply testified by their dismantled condition, that they had borne the brunt of the mighty concussion: and in the back ground of this sad survey, stood the noble Keep of the ancient Castle, rearing its turrets in the air, having its powerful walls but merely scotched by the catas-

trophe; while, in the roll of centuries, from its lofty battlements, amid the strife and din of war, had never mailed warrior looked down on such

"A scene of desolation --stretched around."

Nevertheless, such aspect presents but the materiality of the calamity—the destruction work of a day; one more *black-letter day* to be imprinted in the annals of these towns; and one to be indelibly impressed in the records of those whose property and substance had been so ruthlessly destroyed. But, standing by St. Mary's ancient pile, whose sacred edifice had endured the sternest assault of the explosion, and narrowly escaped the destruction of the fire, we were led to higher and deeper views of the catastrophe. And though,

"We may not the mystery solve--nor dare to scan,
The unerring wisdom of God's ways to man,"—

We well might pause,--and muse,--and moralize in such a scene. And there fell, as it were upon the inward ear, a voice from the ruins, burdened with the utterances of truth and enunciated in the language of scripture, rendered doubly impressive in a scene like this. "Vanity of vanities, saith the preacher, all is vanity!" "I have seen all the works that are done under the sun, and, behold, all is vanity." "Man walketh in a vain shadow and disquieteth himself, he heapeth up riches and cannot tell who shall gather them." "His days are as grass; as a flower of the field, so he flourisheth; for the wind passeth over it and it is gone, and the place thereof

THE MAJOR'S CHURCH, DARTMOUTH





shall know it no more." And I responded, and said in my heart, "In the midst of life we are in death." "We bring our years to an end, as a tale that is told." "O! teach us to number our days that we may apply our hearts unto wisdom." Thus impressed, we pondered the thrilling thought. What is wealth in the estimate of the loss! The solemn sacrifice of life, and the realities of a life to come, out-weigh it all. In that sulphurous abyss lay the charred remains, or there had lately been borne from thence, the mutilated bodies of those whose ardor or whose duty called them to the scene of action and of death. In the hey-day of youth—in the vigor of manhood—in the maturity of age—they had been imperatively summoned to close with time—to finish with life—to be to all things here as though they had not been. And the hopes of many had been suddenly cut off,—wives had been made widows—and children had been made fatherless—and, by one fell swoop they had been reft of their earthly dependence—and parents and friends had been left to mourn.—

"And a feeling of painful emotion came o'er us,
As we gazed on the soul-rending prospect before us;
For the blast of destruction had come as the wind,
Of the dreadful *simoom* in the deserts of Ind.

And crushed was the spirit and might of the bold,
And the heart that just bounded lay senseless and cold;
And we mourned in our spirit in bitterest woe,
O'er the memory of those whom the blast had brought low."

The news of this eventful circumstance spread rapidly throughout the country ; and all who could command the means, and arrange the opportunity, determined upon a visit to the scene of desolation.

GENERAL INTEREST.

The intense interest of the fire and explosion caused the streets to be thronged like a fair the whole of Friday, by the resident inhabitants of the town and neighbourhood ; on the Saturday, the numbers were considerably augmented by the market people from the country ; and on the Sunday, the numbers were almost beyond estimate. It has been stated, that not less than twenty thousand strangers came by train that day ; special trains ran every hour ; and such was the anxiety of the people, that many had to wait for hours at the stations before they could get forward. Some came to sympathize with the injured,—others to mourn with the bereaved,—while the greater number came to satisfy themselves by personal observation ; and having breathed the noxious and polluted sulphurous atmosphere which pervaded the town the whole of the day, they returned in the evening, with the deep conviction that they should “ never look upon the like again.”

Appendix.

In order to avoid an interruption in the narrative of the fire, it has been considered more desirable to place, in the form of an Appendix, many interesting details worthy of note: and also to annex an Analysis of the Inquests and the Verdicts thereupon: and thus, more fully to complete the record of this most memorable fire.

THE FORCE OF THE EXPLOSION.

Perhaps no circumstance better conveys the idea of the immense power of the explosion than the fact, that it burrowed into the solid earth, and undermined the huge granite blocks which formed the tram-way for the carts in Hillgate, and casting these solid stones to an immense perpendicular altitude, so as to soar above the church and then to project them over it for two or three hundred yards into the neighbouring streets.

GATESHEAD.—One stone fell through the roof of the Grey Horse, a distance of 400 yards. Another too heavy for a man to lift, fell on the premises of Councillor Woodston, a little lower down. A third, nearly four feet long, a foot broad, and eight inches deep, weighing 3cwt. 3qrs. 10lb., fell at Mr. Young's, in Oakwellgate, and forced its way into the ground a considerable depth, and stood like a mile-post, attracting considerable attention from its peculiar position. The roof of Miss

Redhead's property in Oakwellgate was damaged by a stone falling through upwards of twenty stone weight. A large stone weighing about 2cwt., was blown through one of the high windows of St. Mary's Church; and another large stone was thrown through the roof, and both were found lying in the pews; another huge missile was blown into the tower.

NEWCASTLE.—Large blocks of wood and stone were also projected considerable distances across the river; one stone was imbedded in a house left standing at the west end of the Quay. A stone was dashed, with such violence as actually to penetrate like a bullet through the wall of the Engine House of the *Courant* office, Pilgrim Street. A stone weighing 18½ lbs. fell through the roof of the premises of Mr. Hewitson, Optician, Grey Street; it broke a beam in its descent, and embedded itself in the workshop floor; when the workmen came in the morning it was too hot to be handled. A huge beam of timber about six feet long, was hurled upon the roof of All Saints' Church; another piece about ten feet long, eight inches square, and weighing 3 cwt. was thrown upon the Ridley Arms' Inn, in Pilgrim Street; and another upon the roof of a house in Mosley Street.

These locations being distant about three quarters of a mile from the point of projection, the projectile force must be imagined, for it cannot be described, that would give impetuous moving power to these enormous magnitudes, elevating them to such amazing altitudes, and casting them to such extended distances.

DISTANT EFFECTS.

The idea of the power of the explosion is also aided, by taking into account the distance at which its effects were felt and heard.

The reverberation was heard so strongly at *Shields*, being near to ten miles distant, that many of the inhabitants rushed from their beds under the belief that the shock had arisen from an earthquake. Several bricks were dislodged from Messrs. Swinburne's glass house chimneys, and the workmen ran out in the greatest fright and excitement. The gas-lights in the Jarrow paper mill were blown out, and at the Pontop drops. The sulphur and other materials cast up by the explosion, were scattered three or four miles down the Gateshead line. The explosion was also felt at *Sunderland*. The working people of Mr. Hartley's celebrated glass works, who were employed at that time, rushed out in great alarm, fearing something serious had happened to their own works. The workmen at Monwearmouth Colliery, the deepest in the kingdom, and at least eleven miles away, heard the explosion, and it is said, came to bank in alarm. Westward as far as *Hexham*, twenty miles; in the North, at *Alnwick*, thirty-five miles; and South as far as *Hartlepool*, near to forty miles distant, the explosion was distinctly heard; and from the coast of both Counties for twenty miles out to sea. The flames were distinctly seen during the conflagration at Smeaton; also, at Harlsey Castle, and Beacon Hill, near to *Northallerton*, about fifty miles away.

The terrific extent of the fire, as well as the power of the explosion, may be judged of by these distant effects. But the most impressive circumstance which can be stated to convey a due idea of this tremendous convulsion, is the simple fact, that while the report was heard at these great distances, and productive of these terrible effects, there were numbers of persons on the Quay and in Hillgate, within one hundred yards of the spot who were totally insensible of it; they describe them-

selves to have been lifted from their feet and dashed down, the violence completely stunning them; and when they awoke from their stupor they had only a dim idea of a great rolling sound having been in their ears; their first impulse being to fly in terror of they knew not what, over the bodies of those who were thickly strewn around.

PROVIDENTIAL DELIVERANCES.

Amidst the numerous casualties and fatalities connected with this painful record, there were also, as might be expected, many remarkable escapes and providential deliverances. Probably most of the persons in the immediate vicinity of the explosion, or within the compass of the falling missiles, could relate something remarkable about their preservation. We select the following as instances of general interest.

His Worship, the mayor of Gateshead, *D. Haggis, Esq.*, had been in Hillgate from the earliest commencement of the fire, actively exerting himself along with Mr. H. Pattinson and others, in directing the operations for the suppression of the flames. In order to visit the Church Walk, he desired Mr. Pattinson to take his place; he had no sooner reached the Church Walk than the explosion took place, and he threw himself under the fire engine for shelter and safety, but he was driven from his hiding place by the stroke of a heavy beam, and was rescued by a policeman dragging him into a passage. This may be accounted a double deliverance, as Mr. Pattinson in Hillgate fell a sacrifice to his position.

Wm. Woods, Esq., managing director of the Newcastle Fire Office, was at the east end of Hillgate, directing the working of the fire engines at the time of the explosion. Prior to it, he had been as near the building as the heat would allow, near to the gateway leading into the warehouse, but was driven off by the fumes of the sulphur, which had become so strong that several persons were vomiting. He stepped into a passage and from thence proceeded into a room which appeared deserted, for the purpose of making an observation, when he was knocked down and thrown upon his back, but as to the cause he did not know. He must have been completely stunned, for he had only a very indistinct idea that any explosion had taken place; on returning consciousness, he heard the *debris* coming down as if a chaldron of coals had been discharged from a coal waggon. He thought he would be choked, and felt his mouth, eyes, and nose, filled with offensive matter; he called out, when two men came to his assistance and rescued him from his position of danger.

Captain *Hussey* and Captain *Whinfield* had just broken the windows in a house in the Church Walk, to get the military engine-pipe through, when the house was blown down; they were dragged out of the rubbish by the heels, otherwise they would have perished. The Officers say, that but for the men sticking to each other as they did, a much greater destruction of life would have taken place.

Martin Hall, son of the late Mr. Martin Hall, fireman, was near to his father at the time of the explosion, and was buried in the ruins; shortly after he was dug out alive, and so preserved; while his father was killed upon the spot.

Robert Sloan, sergeant of the 26th, came from the Barracks, with the fire-engine and about fifty privates—with their officers. They got an order to go to the rear of the building on fire; he was standing on the Church Walk, taking down the hose and putting on the suction pipe, near to Ensign Paynter, when the explosion took place; the houses were blown over on

to the Walk. About twenty-five of the soldiers were seriously hurt—and others injured, but not so seriously; one having a spoke of the grave-yard railing driven into his belly, and another was crushed by the rubbish. Ensign Paynter and Corporal Stephenson, were killed near to the same place. Sergeant Sloan was struck, but not seriously, and retaining his presence of mind, he crouched down against the wall, and endeavored to protect his head with his arms from the falling missiles and thus providentially escaped.

Mr. Schorey, Superintendent of the Police, (*Gateshead*), was near to Messrs. Singers' vinegar manufactory, when the explosion took place. There was such a crash that he thought everything was coming down, and there was dead darkness in a moment. He was thrown with immense violence under an arch-way, and lay stunned for some time; but, as the arch sustained no injury, he was miraculously preserved from the effects of the falling ruins around him—and when recovered, he directed with others the removal of the dead and wounded.

Mr. Dunne, Superintendent of the Police, (*Newcastle*), had a narrow escape during the conflagration. He was standing on a burning building, from which a ladder communication had been cut off, and had to make a spring for his life. He had no sooner left the building than it fell with a tremendous crash.

Mr. G. Smith, Secretary of the North British Fire Office, had a narrow escape. He had been in Hillgate, assisting in the suppression of the fire, and had reached the Church Walk at the time the Barrack engine arrived; when the explosion took place, he was knocked down by a blow on the temple, and with difficulty escaped to a place of safety.

Mrs. Redpath, keeper of the Guildhall, was aroused by the noise of the fire in Gateshead, and going into the hall just as the explosion took place, was thrown down; at the same time part of the wall at her bed head fell, and she was thus saved from the injury it might have inflicted.

A miraculous escape. At the time of the explosion, a man and his wife were lying in bed in a room in Oakwellgate. Being awoke by the shock, they sat up in bed, and almost immediately after a large stone burst through the roof and fell upon the pillow, on which they had that moment before been reposing. The missile fell with such force as actually to break the stock of the bed, and went through the floor into the entry.

Another remarkable instance. A family consisting of a husband, wife, and *eight* children, who occupied an attic in the Church Walk, had all gathered to the window, which was on a line with the conflagration, to watch the flames; when the explosion occurred, some heavy stones were hurled upon the house, breaking down the roof, and forcing their way into the attic in which they were assembled. One large stone fell upon the bed where the children had been lying a quarter of an hour before; the table on which some of the family were sitting was smashed into fragments; the roof was precipitated in amongst them; and yet, wonderful to tell, with the exception of a few light scratches, not one was injured. How strangely does this contrast with the fate of the unfortunate family of the Harts, when all in the house were killed—here all were saved.

Remarkable preservation. It is said, that in the course of excavation at Gateshead, two children were found alive, one in a cradle, and the other in a closet; both houses being in Hillgate.

So thickly and so widely scattered were "fire-brands, arrows, and death" at the time of the explosion, that every one of the vast multitude of spectators, who escaped unhurt in that direful hour, may gratefully look back and recount his escape as a providential deliverance.

LOSS OF LIFE AND PERSONAL INJURY.

MEDICAL SERVICES.

Never was the importance of our public Medical Institutions so fully manifested, nor their public capabilities so severely tested, as on this memorably trying occasion; nor were the invaluable services of the medical profession ever more promptly in action, and more effectively rendered, than in the exigencies of these dire casualties and fatal calamity. The medical gentlemen in Newcastle, as a class, are to be as highly esteemed for a public spirited active benevolence, as they are deservedly honoured for their professional knowledge and practical skill. This tribute to character was justly merited by their repeated arduous efforts during the dire visitations of the cholera epidemics; and again fully maintained under the late pressing demand of urgent circumstances. With this important difference, that they had not to do with a secret, subtle, indefinable disease, but, with injuries proceeding from external causes, wherein their professional experience and daily practice dictated at once the course of immediate relief and effective remedy. The correctness of such statement was amply verified by very many private practitioners, who *sans ceremonie*, attended to several cases in the public streets, and whose services we must needs pass with this general acknowledgment. As may be well supposed, there was work enough for all at the

time when the streets round about were strewed with human beings, dead, dying, or wounded, and lying in a pitiful and helpless condition. In the emergency, the officers of the public institutions were most assiduously attentive to their duties.

Mr RAYNE, surgeon to the Police force in *Newcastle*, had his Surgery in Westgate Street literally besieged by the numbers of the police who had been injured when on duty at the fire, and who resorted or were conveyed thither, to avail themselves of his assistance and skill. We understand that Mr. WILSON, surgeon to the Police force, *Gateshead*, was also similarly engaged and effectively useful.

GATESHEAD DISPENSARY AND NEWCASTLE INFIRMARY.

It was chiefly and naturally to the two great public Medical Institutions in the respective towns, the Gateshead Dispensary and the Newcastle Infirmary, that the people resorted in numbers, for direct and immediate medical aid. Accordingly, all modes of the most ready conveyance were had recourse to, and soon the doors of the institutions were thronged with urgent applicants. It is supposed that from *four to five hundred* persons were more or less injured by this unprecedented calamity.

Mr. CRASTER, house surgeon to the *Gateshead Dispensary*, dressed the wounds of *ten* persons at their own dwellings in Oakwellgate Chare,—parties who had received deep wounds on the head and face,—in addition to the crowd of injured applicants who were promptly attended to at the *Dispensary*. The numbers may be judged of, by the fact, that the names of upwards of *eighty* are given in a list of the out-patients.

Mr. GIBB, house surgeon to the *Newcastle Infirmary*, reports, that as soon as the sufferers arrived, they were subdivided; those who were able to attend as out-patients, were

immediately dressed and discharged; and those who from the severe nature of their injuries, were admitted as in-door patients were immediately sent to bed. After the first accidents arrived, he ordered the nurses to cause such of the in-door patients as were able, to get up and clothe themselves, and not only to resign their warm beds for the use of the sufferers, (a practice frequently adopted in urgent cases of accident,) but, to sit by them, and administer such restoratives as were prescribed by the medical officers, or, were supplied them by the nurses. The old patients were thus rendered of the greatest service, as the matron and nurses were principally engaged in attending to the medical officers during the operations, providing the required dressings, or administering the required restoratives prescribed by them.

Mr. QUENBY, Sir JOHN KEE, and Mr. POTTEN, arrived soon after the accident, and proceeded to use every necessary measure to give relief to the numerous sufferers who had been received into the institution.

The registration of accidents shows that 54 in-door patients were accommodated, and 63 out-door patients dressed and relieved. No ordinary occurrence could have so perfectly demonstrated the great capabilities of the Institution, or the incalculable utility of the recent enlargement of the building.

The following ladies, and a few others whose names could not be ascertained, most opportunely sent parcels of old linen for the use of Infirmary patients. Mrs. Lucas, Mrs. G. W. Gann, Mrs. Newall, Mrs. Bell, jun., Mrs. H. Haad, Mrs. H. Milman, Miss Hiddell, Miss A. Clayton, Miss Thompson, Mrs. T. Leary, Mrs. G. S. Lambert, Mrs. Guthrie, Mrs. Bulmer, Mrs. R. P. Philpott, Mrs. Halstead, Mrs. Burnop, Mrs. Gilling, and Mrs. A. Nichol.

DISINTERMENT FROM THE RUINS.

It is one of the painful and melancholy features of the calamity, that the bodies of the unfortunate sufferers, who had been either crushed by the falling ruins of their own dwellings, or killed by the explosion while engaged in extinguishing the fire, were so much mutilated, or consumed, as to render it most difficult to identify them, even by their nearest relatives, or most familiar friends. Various were the marks by which their remains were recognised—if the features were not to be distinguished, some article of clothing, watch, or ring, or some simple article, or peculiarity about the deceased, served to mark their identity, when no other material trace was left to distinguish the form, which a few hours before was replete with life, activity, intelligence, and hope.

Mr. Dobson, jun., architect, Newcastle, must have remained unidentified but for a bunch of keys in his pocket, and from a little portion of his dress being preserved.

Mr. Skarp, of Summerhill Terrace, a gentleman in independent circumstances, was identified by his watch dangling down, which corresponded with the description left by his friends; and by the clothes upon his breast being so thick that traces of his red braces and the breast of his fancy shirt, were recognised beneath—otherwise his body could not have been known.

Mr. Martin Hall, one of the firemen of the North British Brigade, was almost equally undistinguishable; he was only known by a remnant of his thick fireman's clothing, and identified by his son, who had himself been dug out near to the same place, shortly after the explosion.

Mr. Henry Harrison, Basket maker and general dealer, Dean street. When discovered, his remains were little more than a handful of calcined ashes, and were only identified by the keys of his shop lying near, (the padlock being taken over to match,) by his watch and chain, and the keys of his till.

Charles Bertram, Esq., of Gateshead. All that has been discovered of his remains are a few bones, his snuff box, and a key. His snuff-box was of silver and marked "C. B."

Mr. William Davidson, jun., miller, was identified by his brother Thomas Davidson, by a ring found in his pocket with the initials "W. D." engraved upon the stone, and a bunch of keys. The body was mutilated almost to a cinder, and but for the above marks, could not have been identified.

Mr. James Todd, fireman of the North British, was found to have died at his post, and the jet upon him with which the moment before he had directed the stream of water upon the burning pile; he was reduced almost to a cinder and was only identified by his brother-in-law Mr. Thomas Carr, by the remains of his fireman's clothes.

He was found lying upon another person of whose identity there is not the slightest clue; and there is little doubt but that there are some of the inmates of the common lodging houses lost, whom no one knows; and of whom it may be truly and emphatically said 'there's no one cares.'

'They left not a gap in the world now they're gone;
Having died as they lived--and reached life's journey's end,
Unknown to the world,--and unmourned by a friend.'

PARTIES FOUND DEAD.

Taken from the ruins immediately after the explosion.

The bodies recovered immediately after the explosion though much injured by the bruises they had received, were soon identified.

PARTIES FOUND DEAD.

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Robert Pattinson, (Newcastle,) aged 38, Town Councillor, much bruised, was found completely covered with stones.

Crawbourne Hastings Paynter, aged 19, Ensign of the 26 Camerons, found among the ruins, died of internal injuries.

John Stephenson, aged 24, lance corporal, extensive compound fracture of the skull.

Charles Hamilton, (Gateshead,) aged 53, hair dresser, much bruised about the head and chest.

Charles Duke, (Gateshead,) aged 43, bricklayer, very much burnt, and charred in the lower parts of the body.

Charles Duke, jun., son of the above, very much burnt.

Anthony Willis, (Gateshead,) aged 63, skinner, much bruised about the head and chest.

— Mc'Kenny, (Gateshead,) laborer, very much burnt.

William Battersby Scott, (Gateshead,) aged 24, blacksmith, very much bruised and mutilated.

Thomas Scott, (Gateshead,) aged 27, policeman.

The acid formed by the combustion of the sulphur was sufficient of itself to destroy life, independent of the bruises and the burning.

FOUND ON SUNDAY.

The state of the wind during Saturday having precluded all labor near the ruins, changed to nearly the opposite direction towards the Sunday morning; and, although it spread the noxious effluvia over Newcastle, and strongly tainted the atmosphere for miles distant, it enabled the laborers to prosecute the search on Sunday, when the remains of the following persons were found,—

Alexander Ralph Dobson, (Newcastle,) aged 23, architect, son of John Dobson, Esq., architect.

Thomas Sharpy, Summerhill Terrace, aged 27, gentleman.

*Martin Hall, Gallowgate, aged 52, fireman, North British.
James Mosley, Oakwellgate, aged 27, shackle maker.

FOUND ON MONDAY.

James Wealleans, (Gateshead,) aged 28, worsted weaver, found
in the ruins of the worsted manufactory.
Sarah Hutchinson, (Gateshead,) single woman.
Samuel Hart, (Church Walk, Gateshead) aged 64, laborer.
Mary Hart, wife of the above (found some days after.)
John Hart, son of the above, aged 15.
Mary Ann Hart, niece of the above, aged 8.
Mary Bewick, Church Walk, (Gateshead,) aged 9.
Henry Harrison, (Dean Street, Newcastle,) aged 34, basket
maker and general dealer.
Charles Bertrain, Esq., (Gateshead,) merchant and magistrate.

FOUND ON TUESDAY.

William Davidson, jun., (Gateshead,) aged 22, miller.
Joseph Todd, (Newcastle,) fireman, North British.
Peter May, (Gateshead,) laborer.

DIED IN GATESHEAD FROM THE EFFECTS.

Frank Conway, a little boy, aged 6, killed in bed by a stone
falling through the roof of the house, a considerable
distance from the explosion—died a few hours after.
Sarah Hutchinson, aged 65, splinter, (Rabbit Banks, Gates-
head,) died from fright.
Robert Atleek, aged 70, formerly of Hawk's and Crawshaw's
works—died from the effects of the shock.

KILLED IN NEWCASTLE.

Peter Brown, (Gateshead,) Quayside porter, found among the
ruins of the *Dark Entry*, which was a *cul de sac* on the
Quay. A few minutes before the explosion, he had stated
to two individuals whom he met, and who were together
at the time, that he and two others had taken a quantity
of powder into the warehouse, and warned them against

an explosion; they did not credit his statement, but he persisted, and hurried away to escape the danger.

Mary Adamson, (85, Side, Newcastle,) was standing with her husband on the Quay opposite the fire at the time of the explosion. They were both struck down and much injured, and were immediately taken home. He was afterwards taken to the Infirmary, and recovered; but she died in consequence of the injuries received.

Robert Laidler, (Teams, Gateshead,) aged 23, engineer; he, in common with others, was standing on the rigging of one of the ships, which, as well as the Quayside, were crowded when the explosion occurred, whence he was thrown into the hold of the vessel.

Patrick Mooney, laborer, killed on the Quayside.

Robert Patterson, of Wrekenton, apprentice with Hill and Drury, drapers, Newcastle. He was knocked down on the Quay, and so severely injured that he died after a lingering illness of three weeks.

DIED IN THE INFIRMARY.

Richard Dodds, (Gateshead,) 39, laborer, fracture of skull.

John Young, (Gateshead, late of Edinburgh,) aged 19, wood-turner, laceration of brain, and burns.

James Dalrymple, (Gateshead,) aged 41, miller with Mr. Davidson, fracture of spine.

Ellen Short, aged 23, Mr. Davidson's servant, fracture of ribs.

John Humble, (Gateshead,) aged 23, painter, fracture of pelvis and laceration of bladder.

Isaac Anderson, aged 40, fireman of the North British Brigade, bruises of chest. The *third* death among the firemen.

Mary Kerrs or Carre, (Church Walk, Gateshead,) aged 21, contusion of abdomen, and laceration of bowels.

Ann Ludlow, (Oakwellgate, Gateshead,) aged 54, had her arm almost torn off by a stone that fell through the roof of her house; the arm was amputated in the Infirmary at the shoulder joint, and she shortly after expired.

Wm. Williamson, (Gateshead,) aged 56, fracture of ribs.
William Weir, (Felling,) aged 30, concussion of the brain.
Michael Dunn, (Gateshead,) aged 21, fissure of skull.
James Nicholson, (Gateshead,) aged 7, he had been struck by a stone in the head while standing in the Church yard.
John Wheatley, (Gateshead,) aged 85, skinner, died of lockjaw. His injuries were fracture of thigh and head.
John Gough, (Gateshead,) aged 83, fracture of arms and legs.
James Dixon, (Tutthill stairs, Newcastle,) aged 36, severe burns.
Ann Dodds, Hillgate, whose husband had just gone away with some furniture, and so escaped.
Wm. Wigham, brother to Mrs. Dodds. He had come from Newcastle to help them, when he unfortunately perished.
George Hamilton, found near 'the Crater,' in a crouching position, much bruised, but not much injured by the fire.

It is thus seen, that upwards of fifty persons have directly and immediately lost their lives by this explosion ; while there are a number of individuals who will be seriously injured for life.

INFIRMARY PATIENTS.

Among the fifty-eight *in-door* patients, there were twenty-two with fractures of the bones of the trunk, namely, eight of skull, one of spine, four of pelvis, and nine of ribs ; of compound fractures of the limbs, there were fifteen, namely, one of shoulder blade, three of arm, one of wrist, one of thigh, seven of leg, and one of foot ; of simple fractures of the limbs there were ten, namely, one of shoulder blade, one of collar bone, four of arm, two of the thigh, and two of leg. Four had severe concussions of the brain, three had fatal lacerations of internal organs, twenty-seven had more or less numerous wounds, principally of scalp, eighteen had burns of body, one most dangerously burnt, and nineteen had bruises on various parts.

The injuries of the sixty-three *out-patients* consisted of burns, wounds, and bruises of a less severe character than those inflicted upon the in-door patients. Bits of stones in many places were found sticking in the eye ; or hot stones had been imbedded in the flesh ; or pieces of wood had been forced into the body ; or the patient had been completely enveloped in burning sulphur.

OBITUARY.

The following brief memorials are given as a tribute of respect to the deceased ; while we regret that our lack of information has precluded the insertion of many other individuals though less prominent, not less worthy of remembrance.

Alexander R. Dobson, was the second son of the much respected architect of that name. Having evinced a decided inclination for drawing and constructive art, he commenced his professional studies at the age of eighteen in the office of his father. At the expiration of three years, he proceeded to London, and continued his professional studies in the office of Mr. Sidney Smirke, the eminent architect, with whom he remained for about the same length of time, attending in that period the lectures of Professor Donaldson at the London University, from which he received the first prize given for the study of the science of architecture as a fine art. He likewise studied drawing and coloring from nature, under the instructions of Mr. J. W. Carmichael, the eminent marine painter, who is also a native of Newcastle, now practising in the metropolis. No student ever profited more by such advantages than did Mr. Alexander Dobson, who, in 1852 returned to Newcastle, and thenceforth devoted himself to assisting his father in his extensive practice, wisely availing himself

of every opportunity for studying the best models of ancient art in the civil and ecclesiastical edifices of England. His sketches of the principal or remarkable features of a large number of those buildings testify as well his diligence as his enthusiastic love of his profession; he gained the respect and confidence of all with whom he came in contact professionally, and the esteem of many friends who experienced in private life his amiable disposition, his worth of character, and his gentlemanly unassuming manners. He became a member of the Institute of British Architects in 1851. He was about to improve his knowledge of gothic architecture, by pursuing the study of it on the continent, when, on the fatal morning of the 6th October, 1854, amidst obscure and sordid walls in Gateshead, he fell a victim in the late terrible catastrophe. Mr. A. Dobson had attained the 26th year of his age. His remains were discovered on the Sunday following the sad event, and were committed to the earth in Jesmond Cemetery, in the presence of his bereaved parent and of the very few persons who were permitted to take part in the rites of christian sepulchre.

Ensign Paynter.—This unfortunate young gentleman was the son of Thomas Paynter, Esq., Kensington, metropolitan police magistrate. He was partly educated at Harrow, but the last two years of his life were chiefly employed in qualifying himself under eminent instructors, both in England and abroad, for the general and scientific duties of the profession to which he appeared to have been impelled by the highest aspirations. He only joined his regiment (the 26th Cameronian) in July last, being then *eighteen* years of age. In his short military career he had already won the affections of his fellow-officers by his amiable manners and character, and had already earned the first reward of a young officer, the approbation of his superiors. Lieut.-Col. Whittingham, under whose immediate orders he met his death, whilst actively assisting to extinguish the fire, has recorded his estimation of

him in the following emphatic language "We considered him a most promising young officer, and had it pleased God to spare him, he would undoubtedly in every respect have been an ornament to his profession." The remains of the unfortunate deceased were interred on Tuesday at Jesmond Cemetery, with military honours. A mourning coach followed close after the corpse, in which his father was seated, and the pall was borne by the four younger officers in the regiment. A great concourse of people followed his remains to the place of interment. Ralph Dodds, Esq., mayor, and the venerable Dr. Headlam, one of the borough magistrates, took part in the melancholy procession.

Robert Pattinson, jun., of the firm of Messrs. Pattinson and Sons, tanners, Newcastle, was in the full vigor of life at the time of this sad calamity; he was elected a councillor for Westgate Ward in 1852, and was anxiously attentive to the duties of his office. A melancholy interest attaches to his fate from the fact, that at the last meeting of the Council, only a fortnight before, he was active in promoting a measure for the establishment of a Fire Brigade in Newcastle. On that occasion he seconded the motion of Mr. George Hunter, and the subject was referred to a committee. The unfortunate gentleman had left a party at his father's residence upon the first alarm which reached him; and his zeal to be amongst the foremost and most active of the assistants was the sole cause of his untimely fate. He was universally respected and esteemed, for his urbanity of demeanour, and general desire to be useful and to do good. He was a Sunday School Teacher, and a member of the Wesleyan society for many years. He was interred on the Monday following, and from his position in society and amiable character, his remains were followed to their last resting-place by a large number of friends and the workmen in the employ of the firm.

Isaac Anderson, foreman of the North British Brigade, was the third among the firemen who met their death by the

explosion, he left a wife and four children to mourn his loss. His remains were interred at Jesmond Cemetery, and his remains were conveyed thither on the fire engine, which, during his life he had so often superintended at the various fires in the town. His funeral was attended by all the firemen and a large body of friends, as a token of respect to the deceased.

Charles Bertram, Esq., for many years an eminent merchant in Newcastle, and in business at the time of his decease. Being resident in Gateshead, he had been chosen to the office of magistrate; he arrived at the fire very soon after the outbreak, and was most energetic in his endeavours to stay the progress of the flames. The warehouses having been built under his superintendence and upon his own property, he was well acquainted with the locality, and his information and advice were found to be of the greatest value by the firemen. A few minutes before the explosion, he was seen in Hillgate by D. Haggie, Esq., but was never seen again. His death was universally regretted. We may note that his office in Newcastle was also destroyed by the fire on the Quay.

Mr. William Davidson, jun., miller, was just entering upon the important duties of a business life, when he so unexpectedly came to his death. He had gone down to the mill on the first intelligence of the fire. The office attached to the mill was a high room in premises in Hillgate, on the opposite side to the Mill, and connected therewith by a gangway, which at a considerable elevation crossed the street, and overlooking the scene of the fire, afforded an eligible view. At the time of the explosion, Mr. Davidson was on the gangway with his friends Mr. Dobson, Mr. Sharp, and Mr. Harrison, and their remains were found at no great distance from each other. His father and mother and the rest of the family were in the western part of the mill viewing the flames; and the fate of this young man perishing so near to his friends is extremely touching. Much sympathy has been expressed respecting his death. Mr. Davidson, sen., was also most seriously injured.

INTERESTING INCIDENTS.

The following are selected as interesting incidents connected with the fire.

The Crater. The immediate theatre of this terrible catastrophe suggested the idea of the crater of a volcano. It presented the appearance of a large inverted open cone, the bottom filled with water, and the sides formed by an immense mass of stones, bricks and rubbish. The depth from the edge of this remarkable sphere of the explosion to the water which filled the bottom was fully thirty feet; it is calculated that there was at least ten feet of water below. The diameter of the mouth of the "crater" (which was of a circular form) was somewhere about fifty feet; and altogether its appearance gave the best idea of the extraordinary explosive force which had been brought into operation.

The Effects at Sea. The fire was seen, and the explosion heard, by the crews of vessels coming to the Tyne, at least ten miles to the northward of the bar. The phenomena, as observed by the sailors, was very striking. The first thing that attracted their attention, was the reflection of a fire against the sky in the west, which was followed by what appeared to be a large ball of fire rushing across the distant horizon,—afterwards the shock,—then total darkness,—and in a few minutes after an immense glare of light in the neighbourhood of Newcastle, which continued until day-light.

The brief duration of the Fire. The short continuance of the fire is not the least remarkable circumstance connected with this wide-spread conflagration. It is worthy of note, that a conflagration so extensive, so fierce, and so overwhelmingly rapid in its progress, and which threatened at one time to continue for days, and almost to lay waste the greater part of the two towns, should have been so comparatively soon suppressed. The immense destructive devastation was the work of ONE day.

The Military. The force from the Barracks, consisting of all the 26th Regiment stationed here, and a company of the 1st Dragoons, were commanded by Lieut.-Col. Whittingham ; and although nearly fifty of the gallant fellows were wounded by the explosion, the remainder worked undauntedly for many hours after, and were most active in the protection of life and property.

Number of Families. The number of families burned out are supposed not to exceed two hundred, the greater part of them being of the poorer classes. They have, in most cases, lost the whole of their furniture, but it is calculated that *fifteen pounds*, as an average, will put them even in a better position than they were before. There will also be several widows and families and orphans to provide for.

The Rumour of Gunpowder and the Public Reward. So anxious were the authorities to discover the true cause of the explosion, (more especially with reference to the rumours so widely extended and so generally credited, that gunpowder was stored in the warehouse,) that £20 Reward was offered by the Corporation of Gateshead, added to which, was £100 by the Insurance Companies, to any one giving such information as would lead to the substantiation of such report,—but no direct evidence was forthcoming.

St. Mary's Church, Gateshead. The chancel roof was completely blown down,—the beautiful stained-glass window was broken in pieces, and driven out of the frame,—the whole of the windows were blown out,—and the whole building completely shattered. As to the church-yard, a considerable portion of the wall was thrown down, and the iron railing scattered around, while several of the head-stones were broken.

All Saints' Church. The beautiful stained-glass windows on each side of the pulpit, representing the arms of the Trinity House and Corporation, are irreparably injured,—the doors were torn from their fastenings,—the windows were blown in,—and the body of the church strewn with fragments.

St. Nicholas' Church. St. Nicholas' Church suffered rather seriously on the south side, and it is to be regretted that some bungling mechanic, employed to repair the damage, thrust his ladder through the head of Gibson's fine figure of Our Saviour, in the great east window, and, as has been said, mutilated a head worth a great deal more than his own.

Moot Hall. Most of the large windows were broken, and some of the inner doors, previously locked, were forced open by the blast; the damage is estimated at £300 or £400. Mrs. Proctor, who lives in one of the rooms of the building, while looking towards the fire had an eye knocked out by the materials from the explosion.

Bank of England. We add an incident which is highly creditable to the Bank of England. Messrs. Thiedemann and Co., one of the firms which were burnt out on the Quayside, had locked up in their safe, on the previous night, the sum of £35 in bank notes. On examination on Friday, the notes were found burnt to ashes, but the remains having been laid before Mr. Anderson, the manager of the Branch Bank here, were carefully packed up and sent to London, and by return of post an order for the amount was transmitted to this town.

The Custom House. Mr. Brown, the chief clerk, although living at Brandling Place, heard the explosion, hurried down to the Custom House, and in the course of two hours completely emptied it of all the books, papers, correspondence (extending over more than a hundred years), bonds and other documents of value. As it was impossible to cart them away, horses refusing to face the fire, Mr. Brown procured a steamer, which he laid opposite the Custom House door, passing the contents of the different rooms into it by a gang of men. The vessel then dropped down the river a little way, and was securely anchored until Saturday forenoon, its valuable cargo being guarded by two officers. Mr. Brown's energy and promptness in thus putting materials, the value of which it is impossible to calculate, beyond the reach of danger, has

been much praised, as manifesting the greatest coolness and regard for duty, in the midst of the most bewildering and even dangerous circumstances.

Queen's Heads. The Rev. Dr. Davis, of Gateshead, received a letter containing forty eight *postage stamps*, to be devoted to the relief fund, and inscribed with the text "when thou givest thine alms, let not thy right hand know what thy left hand doeth." The worthy Rector said, while he recognised in the act the spirit of the text, he could say with the profoundest respect and loyalty, that *the Queen's Head* was never better engaged than in the performance of works of charity and benevolence; and, no doubt, employment would be found for the stamps in conducting the correspondence which must ensue in the collection of the subscriptions.

Remarkable Casualty. One man named Thomas Henderson, living in Gateshead, jumped out of the window from fright when he heard the explosion. He fell first on a house below and afterwards to the ground. When taken up and conveyed into the house he was found to be much bruised, but sustained no fracture.

The sharp-fingered gentry. Notwithstanding the activity of the police, and the active co-operation of the military, the professional thieves were remarkably busy in their vocation, and several people having their attention deeply engrossed by the fire had their pockets picked. One woman had her pocket picked of £6, upon the Tyne bridge; and three juvenile professionals were detected in their attempts, and committed to the Borough gaol for three months.

The Brimstone Trade. It is rather a remarkable co-incident that the same number of the *Gateshead Observer* which contained the first account of the fire, contained the following paragraph:—"The imports of Brimstone, during the eight months ended 5th ult., amounted to 1,135,181 cwts., against 580,798 during the same period of 1853, and 495,550 in that of 1852. During the single month ending at the same period of

each year, the importations respectively were 60,689, 227,257, and 333,634 cwts. The lowness of freights which has recently prevailed in the trade has considerably contributed, no doubt, to this great increase of importation ; but we trust, at the same time, that it may be attributed in part to a continued activity in the manufacturing industry on the banks of the Tyne."

This fully accounts for the stock of sulphur in the warehouses, and may account for other places being so stored.

God's Judgment on an ungodly City. This is the title of a sermon preached in St. John's Presbyterian Church, South Shields, by the Rev. J. Storrie, and having reference to the late calamities which have visited Gateshead and Newcastle. The author appears to regard these calamities as a special divine judgment upon the two towns for their ungodliness. From the recent statistics furnished by the census returns, he draws the conclusion, "that, as a community, the town of Gateshead worships no God." It appears odd enough, however, that the profits arising from its publication should be handed over to the relief fund ; for with such views, it seems to contravene the divine purposes, to presume to alleviate the misery of those whom God designed to punish by the inflicted calamity.

BENEVOLENT EFFORTS.

PUBLIC.

We have already noticed the active efforts of the authorities for the suppression of the fire, we have now to record the steps taken by them to compensate for the loss, and to alleviate the temporal necessities of the sufferers. However painful it is to contemplate the misery and suffering which such great public disasters necessarily produce, it is not the less a pleasurable feeling to reflect upon the elevation it gives to our common nature, to see the

well-springs of private and public benevolence bubbling up to alleviate the distress and to mollify the sorrow which such events so generally occasion. There are two thoughts suggested in connection with these public efforts of benevolence, which may be referred to. The one is the intimate and indivisible connection of all classes of society. This principle has been, as it were, instinctively developed under the circumstances of the calamity. In the progress of the fire, the property of the rich was extensively jeopardized, and *the* people, the operative, and the laboring portion of the community, put forth their willing efforts, and brought their efficient aid to the rescue; and, on the other hand, is presented the benevolent and spontaneous forthcomings of the wealthier classes, to lessen the loss and assuage the bitterness of the calamity to the poor. Thus is evidenced by the honest dictates of our better feelings, the great truth, that the true interests of society, in all the varieties of its respective classes, are individually one and the same. How desirable is it then that this truth, and the feelings springing out of it, should be uninterruptedly maintained; as it is, society seems almost to require such occasional casualties as reminders of this great primary truth. The second thought springs from the generous fact, that the benevolences were made *one common fund*. The greater number of sufferers were on the Gateshead side,—the wealth might be said to be on this; but one spontaneous feeling

made the fund **ONE** to meet the distresses of this *one* great calamity. Such feelings and co-operative acts balance beautifully against any petty jarring of the interests of the two towns which occasionally occur, and which it would be unwise to desire to see entirely done away, as they most certainly tend to keep awake the activities and circumspection of both, and ultimately tend to mutual good. In this great calamity, and in all other great efforts of business and improvement, the substantial interests of the two towns are essentially and necessarily one; and this united act of benevolence is admirably calculated to impress the lesson, and its remembrance permanently to maintain such good understanding.

NEWCASTLE.

Proceedings of the Council. The mayor, Ralph Dodds, Esq., convened a meeting of the Magistrates and Town Council, which was numerously attended; and on the suggestion of R. P. Phillipson, Esq., seconded by Dr. Headlam, a committee of the council was appointed, consisting of Mr. Phillipson, (to whom a warm tribute of acknowledgment was passed for his exertions during the day) Mr. Plummer, Mr. G. Hunter, Mr. Hammond, and Mr. Hedley; Mr. Hawks was appointed treasurer. The Mayor then intimated, that he would decline giving the Annual Ball, but would give the money, he would have been caused to expend, to the relief fund. It was then resolved to hold a public meeting to aid this benevolent object. It was agreed also to open subscription lists at the various Banking Establishments; Mr. Newton properly suggested the propriety of commencing the list by way of example in the council, and the sum of *six hundred pounds* was liberally

subscribed by the members. Mr. Stanley also suggested that the Ministers of the town be requested to make collections.

Board of Guardians. An especial meeting of the Board of Guardians was called, to see what means could be devised to afford relief to the sufferers. The meeting appointed the Chairman, Vice-Chairman, Dr. Robinson, and Messrs. Hopper, Challoner, Pollard, Robinson, and Grace, a committee to co-operate with the committee of the council. The relieving officers, Messrs. Wilson, Jenkins, Robins and Heslop, were directed to consult with, and to give their services to the carrying out the measures adopted by the joint committee.

Public Meeting. In accordance with the resolution of the council, a public meeting was held in the Guildhall, the Right Worshipful the mayor in the chair, who briefly opened the business. Mr. Blakett, M. P., for Newcastle, in a short appropriate address proposed that "a subscription be opened for the sufferers by the late fire, and generally for alleviating the consequences of the calamity." This proposition was seconded by Mr. George Fenwick. Mr. Alderman Blackwell moved the appointment of a committee, consisting of the Mayor, Sheriff, and Messrs. R. S. Stanley, Benjamin Plummer, J. C. Blackwell, G. Bargate, William Beaumont, H. Angas, in conjunction with the gentlemen of the committee appointed by the council. Mr. C. Atkinson seconded the same. Mr. Alderman Hawks, being requested to act as treasurer. The Rev. Mr. Hawks enquired whether the sufferers in Gateshead would share in this relief; Newcastle, he said, was a wealthy town, but he believed that the greater number of sufferers were in Gateshead. The mayor said, *the committee would not be wanting in their duty to Gateshead*; and Dr. Headlam responded, that the resolution extended to *the* sufferers by the fire. *No distinction was to be made between either side of the water.* Various votes of thanks were passed to the mayor, magistrates, and other influential gentlemen who took part in extinguishing

the fire, more especially marking and commending the conduct of the *operative classes*. The same respectful tribute was paid to the authorities of the neighbouring towns and other public bodies for their prompt aid in the hour of need. This vote was respectfully acknowledged by Mr. Ingham, M.P., for South Shields. The respectability of the parties attending and taking part in the meeting, manifested the public interest the calamity had excited. The subscription list was then handed round, headed by the mayor for the munificent sum of £100, and received many handsome additions by gentlemen who had not previously subscribed.

GATESHEAD.

Council and Guardians. The Town Council met on Friday, to take into consideration the necessary steps to be taken on the melancholy occasion. The attendance was large. The Rector, Dr. Davies, and his Curates, and other influential individuals in the Borough were invited. It was ultimately agreed to invite the co-operation of the Board of Guardians, who were then sitting, and on their attendance, it was resolved to select a committee, and to call a public meeting. It was also resolved, to request the Home Secretary to send some one down to attend the judicial investigation about to take place. The thanks of the council were voted to Captain Cooke, of the Sappers and Miners, who had been in constant communication with the authorities since the commencement of the fire.

Public Meeting. The public meeting as resolved upon by the council, took place in the Town Hall, D. Haggie, Esq., mayor, presiding. In introducing the business he said, that it had been his intention shortly to give a dinner and a ball; he had now determined to dispense with them and to devote the cost to the benevolent fund. The Rev. Dr. Davies, rector, proposed the first resolution, that "a public subscription be raised for the relief of the necessitous sufferers." He stated that he had received a letter from the venerable *Bishop of*

Durham, who had written to express his sympathy, and to beg that he might be allowed to aid in any effort to be made for providing relief. He also tendered his assistance towards putting the church into repair. Mr. H. G. Liddell, M. P., said, that his venerable relative, *Lord Ravensworth*, had intimated his desire to alleviate the distress of the sufferers; and, he added, that his whole family had talked the matter over, and if he might be allowed to act as collector among his own friends and the members of his family, he would most gladly assist in this work of benevolence. Doubtless there was much to deplore, the loss of property and the loss of life had been most alarming; but, there was a ray of comfort in the prospect of future improvement; and, they had reason to hope that this visitation was not without its appropriate lesson.

Mr. George Crawshay then moved the appointment of a committee to be united with the relief committees of Newcastle. He stated, that the mayor of Newcastle had said to him that morning, "you may do with your money what you like, but the Newcastle fund *will be distributed without distinction of Boroughs*;" and it appeared to him, that this was the only way that the subscriptions and fund could be dealt with. Mr. A. G. Gray, in seconding the resolution, said, this was *no time for sectarian local feeling*, they had fellow sufferers on both sides of the Tyne, and their only thought must be to relieve them. The following gentlemen were then appointed a committee: The Mayor, the Rector, Rev. W. Atkinson, Mr. Alderman Hawks, Messrs. John Greene, R. S. Newall, George Crawshay, A. G. Gray, J. Hewitt, J. Sowerby, R. W. Hodgson, T. P. Ionn, C. Garbutt, H. Brady, R. Walters, and R. Brown.

Various votes of thanks passed of a general character, similar to those at the meeting in Newcastle.

Mr. A. Gray suggested that the subscription list should at that time be sent round, a proceeding which was at once

adopted. The Mayor munificently heading the list by a donation of £100, and the subscriptions in the room amounted to nearly *one thousand pounds*.

PRIVATE BENEVOLENCES.

It is not intended here to attempt a list of the individual donors to this extensive fund, but only to note those which are marked by special circumstances.

CONTRIBUTIONS.

THE QUEEN.—If one fact is more gratifying than another in this work of charity, it is that her most gracious MAJESTY THE QUEEN, in passing through this town from the north *en route* to London, contributed the handsome sum of *one hundred pounds* to the fund. Her Majesty made every enquiry of the Mayor of Gateshead respecting the catastrophe, and the royal train stopped a few minutes on the High Level Bridge as it crossed, in order to enable her Majesty, Prince Albert, the royal children, and suite to view the ruins both in Hillgate and on the Quayside.

THE EXTRAORDINARY MUNIFICENCE of Cuthbert Ellison, Esq., of Hebburn Hall, and of Mrs. Ellison, in respect to the fund for the relief of the sufferers by the late awful fire and explosion, *is deserving of particular and permanent record*. To the Gateshead fund, Mr. Ellison contributed £200, and Mrs. Ellison, £50. To the Newcastle fund, Mr. Ellison, contributed £150, and Mrs. Ellison, £50—in all, no less than £450.

ALNWICK.—The inhabitants of Alnwick, held a public meeting, William Dickson, Esq., in the chair, for the purpose of expressing their sympathy with the sufferers from the late fires in Newcastle and Gateshead; a subscription was set on foot, and a numerous committee appointed, who

immediately commenced a vigorous collection in the town. They everywhere met with the kindest reception, and the call was nearly unanimously responded to by all classes. By their efforts (including a munificent donation of 100 *guineas*, sent to the committee by the *Duke of Northumberland*,) they succeeded in raising a sum of nearly £300, available for the relief of the distress occasioned by the fearful calamity.

Several of the neighbouring towns were also zealous in their benevolent efforts, and liberally contributed to the fund.

THE LORD BISHOP OF DURHAM with his accustomed liberality subscribed £150.

THE RIGHT HON. THE EARL OF CARLISLE most liberally contributed £200.

The Staff of the Northumberland Militia nobly subscribed nearly £70.

A MUNIFICENT BENEFACTOR.—The *Newcastle-upon-Tyne*, Ralph Dodds, Esq., received with a draft for *one hundred pounds*, from the deacon Bentineck, a relative of His Grace the Duke, and who is Rector of Sigglesthorne, near Hull :—

“Sigglesthorne Rectory, Hull, Oct. 23rd, 1854.
deacon Bentineck presents his compliments to the Mayor, Newcastle, and begs to enclose him a draft for £100, for relief of the unfortunate sufferers by the recent awful fire and explosion.—£50 from Mrs. Bentineck, and £50 from the Archdeacon.

The following note was also received by the Mayor of Newcastle, Ralph Dodds, Esq. :—

41, West Smithfield, 10th November 1854.

Sir,—We have much pleasure in forwarding you a cheque for £200, from an esteemed friend, *Mrs. Marllion*, of *Paris*, for the poor and destitute sufferers by the late fire at New-

castle, and will feel greatly obliged if you will be kind enough to send us an acknowledgment, in order that we may forward it to her.

We are, Sir, your obedient Servants,

Ralph Dodds, Esq., Newcastle.

J. & W. STRIDE.

At the close of the Gateshead public meeting, Mr. A. G. Gray, handed in £120 12s., as the contributions of a few *London Merchants*; and also, £35 as a donation *from his workmen*.

The *workmen* of a number of the manufactories and workshops subscribed in the same liberal manner.

Mr. George Crawshay stated, that the workmen in the employ of *Messrs. Hawks, Crawshay, and Co.*, had resolved to devote *one day's pay* to aid the relief fund, which was supposed would probably amount to nearly £300.

THE THEATRE.—Immediately after the extent of the destitution caused by the catastrophe became known, Mr. Davis, with ready generosity, announced that the total proceeds of Tuesday night's performance would be handed over to the relief fund. The public nobly responded to this liberal offer, and Mr. Davis was enabled to pay over no less a sum than £63 12s. 6d. to the treasurer.—*Miss Horton*, who was in Newcastle on a special engagement, volunteering her services *gratuitously*.

THE BRAEMAIS SINGERS.—These singers paid over £14 13s. 6d. to the treasurer of the fund, being the proceeds of a special concert given for the relief of the sufferers.

Church and Chapel Collections.—The suggestion made in the meeting of the Council by R. S. Stanley, Esq., was fully carried out; and public collections were made in the various churches and chapels. Thus, not only giving an opportunity to all of contributing their aid, even to the humblest in circumstance, but, also, affording a fitting occasion of appeal and appliance of the moral and religious lessons of instruction.

dictated by such calamity. The same was done in many of the churches and chapels throughout the two counties.

In narrating the Historical Events of the town, we were led to note the expansive benevolences of the olden time; and when we record that this relief fund, aided by subscriptions from all parts of the country, and even beyond, exceeds the noble and magnificent sum of *Ten Thousand Pounds*, it may be judged that the impulses of a generous hearted charity are as true to nature now as then.

PROPERTY DESTROYED.

In the following description of property we only give a very general outline, in order that distant parties who are acquainted with the localities, may have a more correct idea of the extent of the fire, both in Newcastle and Gateshead.

GATESHEAD.

In Gateshead, besides the less serious damage to windows and property generally, we may say that all that part of the town from the Church and Churchwalk to the river, lying east of Bridge Street, and comprising Hillgate, is more or less destroyed by fire and explosion. The whole of Canon Street, situate on the south side of St. Mary's Churchyard, may be said to be from end to end a mass of ruins. Then the houses in Church Walk, situated on the brow of the embankment, were, without a single exception, so shattered and demolished as to be no longer fit or safe for human habitation.

As to the property lying contiguous to the river, the following valuable premises are a mass of ruins.—At the east end of Hillgate, from Messrs. Singers' Vinegar Factory, a clump of

tenements, the Bond Warehouse, Messrs. Carr's Timber Yard, Messrs. Wilson's Worsted Manufactory, and also the Fellmongery of Messrs. Wilson, adding to the loss of that firm, and Mr. Bulcraig's Engine Manufactory, form the western limit. Running parallel with these premises, but on the opposite side of Hillgate, were a large cluster of tenemented houses, occupied by Irish laborers and others, together with one or two common lodging-houses, having the large and once flourishing flour mill of Mr. Davidson closely contiguous; these from their proximity to the worsted mill and bond warehouse received the full force of the concussion, some of which fell, burying unhappily among the ruins a great number of their helpless inmates, others were unroofed, while some, with the flour mill, were consigned to the flames.

NEWCASTLE.

The spectacle presented by the extensive ruins of the buildings on the Quayside is a very saddening one. The great marts and offices for business which have been destroyed present a melancholy subject for reflection in this busy mercantile town.

The Custom House,—the grand centre of mercantile and shipping business, was unroofed, and had the front windows totally demolished; every door was thrown off its hinges, and 500 feet of plate glass were destroyed.

Broad Garth Entry. Property damaged fronting the Quay.

Fenwick's Entry. Front property much injured by the fire, and part totally destroyed; the property in the Entry generally escaped.

Plumber Chare. Nearly all the warehouses burnt down.

Hornsby's Chare. The property generally destroyed.

Colman's Chare. Totally burnt down.

Pallister's Chare. Ditto.

Peppercorn Chare. Ditto.

Blue Anchor Chare. Warehouses on the west side untouched.
Grinding Chare. Considerably burnt down, the front property totally destroyed.

Dark Entry. The west side of this Entry is uninjured, but the front property, up to the head of the Quay, though much injured where not destroyed.

The Exchange and Town Clerk's Offices, were completely shattered in the windows and roofs, and thrown into the most desolate condition.

In addition to these, there was great destruction of property in the *Butcher Bank, Pilgrim Street, and George's Stairs.*

THE ESTIMATED LOSS.

On this head it is impossible to say anything with certainty, but the estimate which has been formed places the damage at **HALF A MILLION.** Much of the property was exceedingly old, and the buildings, as buildings, would have realized a comparative trifle only, the value of the site be deducted from them. But, on the other hand, many of the worst of these erections, standing on and near the Quay, though one half of wood, were firmly put together, and would have stood for years to come without further deterioration, while the rental derived from them, in many cases extravagantly high, was as secure as an investment in the funds. Taking these facts into consideration, the property was undoubtedly worth a very great amount, and when we add the value of the better description of property, the new mill, warehouses and manufactories in Gateshead, the immense loss of goods, furniture, and domestic effects, the wrecked condition of many public buildings, the estimated loss by property being so injured as to require reconstruction, and the astonishing and wide spread damage to habitations and mercantile establishments far from the fire itself, we cannot place the total loss by this desolating event at a lower estimate than **HALF A MILLION.**

THE INSURANCE COMPANIES.

A meeting of the various agents of the respective fire offices, which had issued policies to the owners of property who had sustained loss or damage by the fire, was convened in the Central Exchange Hotel, W. Woods, Esq., in the chair; in stating the object of the meeting he said, they must not, in the *first place*, forget the cause of humanity, and he was assured that there was not a gentleman present, but who would enter into his views for paying proper attention to the individuals and their families who had suffered from their exertions on that occasion; there was next, the expense which must necessarily be very large, he therefore suggested the appointment of a committee to ascertain and apportion these expenses. A discussion then ensued as to the duties of the committee, which were generally summed up to be the expression of sympathy with the sufferers—to inquire into the cause of the explosion, to obtain correct information as to the extent of the damage, to ascertain the expenses incurred in extinguishing the fire, and apportion the expense to be borne by the respective offices; not confining it to those who were sufferers in the matter, but also to those more fortunate offices which had been saved by the exertions made by the others. Resolutions were passed in general accordance with these views.

LIABILITY OF THE INSURANCE OFFICE.

How far the aggregate loss is covered by insurance it is difficult to say, but it is certain that the amount is, comparatively speaking, trifling. Many claims have not been examined, a large amount of salvage is still to be ascertained, and some time will be required to go through the investigation with the necessary attention. The following is the nearest estimate that has been obtained of the amounts to be re-funded by the various offices:—The Newcastle Fire office, £20,000; the County, £20,000; the North British, £15,000; Leeds and Yorkshire, £7,000; the Royal Exchange, £7,000; the Nor-

wich between £4,000 and £5,000; Essex Economic, £4,000; the Anchor, £5,000; the Sun, £2,000; Imperial, £4,000; National Provincial between £1,000 and £2,000; West of England, £500; London Assurance, £200; Liverpool Royal, £400; Scottish Union, £5,000; Yorkshire, £5,000; Alliance, £4,000; General Assurance, £7,000; Union, £1,000; Phoenix, £2,000; the Globe, the Legal and Commercial, and the Atlas Offices and several others not ascertained, are expected to raise the sum to something near £180,000.

INDIVIDUAL INSURANCES.

The following are a few of the individual cases of Insurance.

On enquiry, it has been ascertained that Messrs. Wilson, of the Gateshead worsted mill, were insured for £2000; Mr. Davidson, miller, £9,000, (the value of the engine standing to be deducted from that sum); and as to the bond warehouse, it was mortgaged to the County Fire Office for £15,000. It has also been stated that nearly all the merchants possessing goods within it were insured. Mr. Hew Singer's was also insured. As to some of the parties on the Quayside, we understand that Messrs. Mackay and Smith were insured for £7,500, including stock and property; and Mr. Teasdale, who kept the public-house behind, and who had barely time to escape in his night dress, £1,000; but neither of these sums adequately cover their losses. Messrs. Harding were insured for £5,000, and, it is stated, Mr. Snowdon, £1,700. Several other parties have also secured something by being insured; but still there are a number of others occupying the property as tenants, who have lost their all from the rapid progress of the flames.

The damage of Mr. Edgar's stock in the George's Stairs, is estimated at between £400 and £500—*uninsured*.

The Judicial Enquiry.

A judicial enquiry may be aptly compared to a voyage of discovery. It may be needful to explore every bay and inlet of the sea, within certain geographical limits, in order to discover the passaga, or land, or haven desired. It is not less bounden in a judicial enquiry to follow up every point which is presented in the investigation, and to trace every tittle of evidence to its source, so that possibly the truth may be established ; but, as in the case of a second expedition of discovery, it would be a superfluous waste of time and energy to navigate those bays and inlets which had been previously explored, so we deem it unnecessary, on a review of this judicial enquiry, to recapitulate a mass of evidence, which in the first instance it was essential to examine, and which in no wise tended, in the ultimate, to develop the truth, or to lead to the ascertainment of the facts involved in the investigation. We shall, therefore, in this brief review, endeavor to present a simple abstract of the evidence educed, bearing on the *few* important points of the enquiry, rather than a mere detail of extraneous particulars.

In so doing, we *first* premise that we shall consider the *two* inquests as *ONE* enquiry, engrossing in substance, substantially the same evidence, and bearing upon one and the same object. In the *second* place, we consider that the enquiry involves but *two* plain points of investigation,—the one, *the origin* of the fire, the other *the cause* of the explosion. The first is a simple enquiry as to a matter of fact, which may or may not be ascertained, and which, comparatively, whether or not, is of little consequence to the public interests. The second is paramountly

important, because the investigation involves a principle of chemical science, a commercial fact, and a truth in social economics. The combination of the contents of the warehouse may involve a principle in chemical science not yet ascertained—and their being stored together, even in less quantities, a hazardous commercial experiment—and from the wide-spread devastation which has been wrought, may require some especial act of social legislation to guard against its repetition. This second branch of the enquiry, embraces **THREE** particulars,—*first*, the contents of the Bond Warehouse; *second*, the evidence as to the existence of gunpowder in the warehouse; and *third*, supposing the non-existence of gunpowder,—a statement of the scientific theories educed as illustrative of the cause. According to this arrangement we proceed to a brief review of the evidence.

OFFICIALS CONNECTED WITH THE INQUESTS.

GATESHEAD.

The inquest in Gateshead was held before **J. M. FLAVELL, Esq.**, coroner, for Chester Ward, North Durham.

CAPTAIN DU KANE, of the Royal Engineers, was appointed by Lord Palmerston to attend the enquiry on the part of the Government.

ALFRED SWAIN TAYLOR, F.R.S., and Professor of Chemistry, Guy's Hospital, London, was also appointed by Lord Palmerston, to investigate the chemical causes of the explosion.

HUGH LEE PATTISON, Esq., gave evidence at the request, and by the appointment of the Jury.

MR. BUSH, solicitor, Newcastle, appeared to watch the proceedings on the part of Mr. Sisson, agent for the Bond Warehouses; and **MR. KENMIE**, town clerk, on the part of the Gateshead Town Council.

The Gentlemen of the Jury were—

Mr. John Greene, foreman, (<i>afterwards withdrawn.</i>)	
Mr. John Sowerby.	Mr. John Golightly.
„ Bryan John Prockter.	„ Joseph Abbot Hymers.
„ Matthew Thompson.	„ Robert Coulthard.
„ Samuel Neville.	„ John Vickers.
„ Henry L. Monro.	„ Joseph Fenwick.
„ William Lishman.	„ Edward Bruce.

NEWCASTLE.

The Inquest in Newcastle was conducted before J. G. STOKER, ESQ., Coroner for the Borough, and a Jury of the following Gentlemen :—

Mr. Ebenezer Robson, *foreman.*

Mr. John Mawson.	Mr. Thomas G. Morland.
„ J. R. Shield.	„ Thomas Wallace.
„ John Gray.	„ Thomas Short.
„ John Dunn.	„ Robert Cooper.
„ George Bell.	„ John Armstrong.
„ Allan Falcus.	„ Charles Septimus Gibson.

EVIDENCE—ORIGIN OF THE FIRE.

John Ewart, of the Newcastle police, while on duty about half-past twelve at the head of the Quay, near the Exchange, was the first to discover the fire. He raised the alarm, and ran to Gateshead and communicated the intelligence to Walter Scott of the Gateshead police. They then proceeded to the manufactory and broke the door open, and found that the fire was raging in the premises next the water.

Mr. J. B. Thompson, agent at Messrs. Alhusen's chemical manufactory, stated that as he was returning home to Gateshead on the night of the 5th of October, he observed from the Tyne Bridge a red light in Wilson's worsted manufactory, and raised the alarm immediately. A person, whom he had reason to suppose was Mr. Wilson, Junr., opened the door of the mill just as he arrived ; he went up into the upper part of

the building, and into the room where the machinery was ; six or seven spindles of worsted were on fire. Did not see that any part of the building was on fire. There was gas in the lower room. Did not ask how the fire originated, and had no explanation of the cause. Witness had no doubt the gas was burning in the upper room, and *supposes* that some flock of the worsted had fallen on one of the gas-lights and had caused the fire. The room was all in a blaze in a moment, and he was glad to get away. There were several persons in the mill at the time.

Mr. James Wilson, one of the proprietors, stated that his nephew, John Wilson, slept on the premises ; he had no knowledge of the part where the fire commenced, but from report. He considered the drying house above the boiler the most dangerous part of the premises ; all the floors were wood ; the room was not ceiled, and the planks were a little open, but rods were driven in to prevent wool falling through ; the engine fire was damped every night. The men worked by gas-light, and on finishing turned off their lights, and afterwards the main-tap. They used a quantity of oil, about a pint to twelve pounds of short wool, and one pint to twenty-five pounds of long wool ; the oil was mixed with milk. He could not say what the waste was on the floor previous to the fire, it might be between twelve and thirteen pounds ; oil was mixed with the waste, and if it caught fire it would burn rapidly. He considered the drying house above the boiler rather dangerous, but the Insurance office charged the additional risk. The factory was previously burnt down, and the same office as the first insured the premises.

John Wilson, nephew, said that he slept on the premises on the night of the fire, in the adjoining dwelling house. He was awoke while in bed by the police knocking at the door ; he immediately went into the mill, and on proceeding up stairs, perceived the ceiling of the highest room but one on fire. It was burning fiercely, but he had no idea how the fire originated.

About half-past seven o'clock he saw the top room, where the fire commenced, quite safe; about half-past ten he was in the drying house, and every thing appeared safe at that time. When he was in the high room at half-past seven, James Taylor, one of the men, was there preparing the machinery for the next day, but he followed witness down stairs. James Taylor would turn the gas off in that room, and he (witness) *turned off the main tap*. Some of the windows were left open, and if any sparks went in they might cause the fire. He was satisfied that the fire did *not* commence in the drying house. He went up stairs because the other parts of the manufactory were not on fire.

James Taylor, one of the workmen, was in the mill about eight o'clock the night before the fire, he had been sizing a warp in the highest room but one; *he put the gas out* before he came down stairs, and there was nothing left in the room likely to cause the fire, and he could not account for it.

James Morrison, stoker at Mr. Davidson's mill, spoke to his discovery of the fire, and on his arrival at the manufactory found three or four policemen there, and they all rushed in; *he saw no gas burning*; the light of the fire was shining down through the trap holes of the floor to the lower part of the mill. When he first saw Mr. Wilson's son he was in his shirt. He could see into the worsted mill from where he was working, but never saw any light in it until the fire broke out.

This is the sum of the evidence bearing on the origin of the fire, and it certainly leaves the cause unascertained and evidently unascertainable. The Gateshead Jury in their verdict record the difficulty of coming to a conclusion, as to the origin of the fire, 'owing to conflicting evidence;' and add, 'that there would appear to have been a want of caution.' There must certainly have been more in evidence submitted to them than meets the public to authorize such statement or to warrant such censure, even by implication. On the face of it, it is simply a lack of evidence which leaves the cause unknown. The verdict of the Newcastle Jury is at once clear and definite. "We have no direct evidence of the origin of the fire."

Under the following head there are THREE particulars of enquiry.

CAUSE OF THE EXPLOSION.

First—The Contents of the Bond Warehouse.

Mr. George Sisson, agent for the County Fire Office, proprietors, or mortgagees in possession of the Bond Warehouse,) handed in a statement of the goods in the warehouse at the time of the explosion.

On the *first* flat there were

409½ Tons of Iron.
 874½ " Lead.
 147½ " Sulphur.
 128 " Nitrate of Soda.
 75 " Manganesc.
 60 " Guano.
 2 Bales of Rags.
 56 Boxes of Soap.
 6 Casks of Cement.

On the *second* flat.

505 Tons of Sulphur.
 320 " Guano.
 10 " Pearl Ashes.
 40 " Ochre.
 10 " Manganesc.
 2 " Pyrites.
 1½ " Coal Tar.
 2 " Zincs.
 34 " Copperas.
 24 " Pumice Stone.
 4 " Arsenic, (in 39
 Casks.)
 5 " Alum, (Casks.)
 1 Case of Yellow Metal.
 3 Cases of Empty Boxes.

On the *third* flat.

709 Tons of Sulphur.
 12 " Pumice Stor
 90 " Bone Ashes.
 100 Boxes of Tin.

On the *fourth* flat.

337 Tons of Sulphur.
 170 " Salt.
 12 " Pumice Stor

On the *fifth* flat.

302 Tons of Sulphur.

On the *sixth* flat.

61 Tons of Salt.
 50 " Manure stud

Seventh. Empty.

SUMMARY.

2800½ Tons of Sulphur.
 128 " Nitrate of S
 409½ " Iron.
 85 " Manganes
 174 " Lead.
 5 " Arsenic, in c

Mr. Sisson stated that he, as agent, had been in charge of the premises for three years; and that he believed Per

Smith, warehouseman, to be both truthful, honest, and discreet in the management of the warehouse.

Mr. Percival Smith, warehouseman, stated that in one vault with forty-five tons of nitrate of soda were forty-seven tons of sulphur, with a tarpaulin cover to divide them. The vault was air-tight, and no entrance but by the door. *The vault was a stone-arched roof.* Another lot of nitrate, containing thirty tons, lay in a warehouse on a ground floor, adjoining the vault fifty tons more of nitrate were lying close to the last, with a wall to separate them. There was a lot of sulphur (seventy tons) lying in the same place, quite uncovered, and one touching the other. The nitrate of soda was in bags, and the room was only closed up with other goods. There was *no naphtha or oil of vitriol* on the premises. The pearl ash was on a different floor from the nitre, and could not fall upon it. The floors were of wood, and the burning materials would be charred, and, no doubt, would fall among the sulphur and part of the nitre.

The Warehouse being a *Free* warehouse, the several merchants gave evidence of the kinds and quantities of their respective stocks warehoused.

We have been thus particular in recording not only the quantities, but also stating the position of the stock; because the position may, for ought we know, effect the scientific portion of the enquiry, as to their chemical combination. Perhaps not so much as it respects the present enquiry, but future chemical experiments and discoveries.

Second—The Existence of Gunpowder in the Warehouse.

The impression being generally prevalent that Gunpowder was the only explosive material which could have wrought such extensive effects, and the rumour that gunpowder was in the warehouse, being so generally credited, Mr. Flavel, coroner,

stated that he would summon any one who was supposed to have any knowledge of the fact.

Edward Collins Sanders, landing waiter in Her Majesty's Customs, produced a return of gunpowder received into this port, from the sixth of July to the sixth of October,—from which it appeared that 820 casks and 1,271 packages had arrived in twelve vessels; six of these belonged to Messrs. Clarke & Dunn, the other six were destined for Walker and other places out of the town.

Mr. John Clarke, of the firm of Clarke & Dunn, deposed that they had a brig called the “*Ann*,” (the Coroner referring to the above returns, that about 142 casks of gunpowder were on board of this vessel.) Mr. Clarke stated that one hundred went to the Derwent Mining Company, and that he saw them sent,—the remaining forty-two being part sent to the powder magazine at Walker, and part to the hardwaremen and gunsmiths in the town. He further stated that he was quite prepared to swear that *no part* of the powder which arrived about October was deposited in the warehouse in Hillgate, and that *he never sent any there in his life, or knew of any going there.*

Mr. Sisson, agent for the warehouse, stated that in no one instance had he ever been asked to store gunpowder in his warehouse; and if any should have been there at any time, it was entirely without his knowledge and consent. He thought it impossible that gunpowder should be smuggled into the warehouse.

Mr. Smith, warehouseman, said, there was no gunpowder in the warehouse that night that he was conscious of, nor was there any charcoal or saltpetre. It was impossible to put gunpowder into the premises without his knowledge.

Theodore Lange, (of the firm of Leideman & Co.,) *Sampson Langdale*, (agent for Ashton & Co., London,) and *John Harrison*, (of the firm of Harrison, Carr & Co., merchants,) reiterated the same evidence, that there was no gunpowder stored by them, neither was there any stored to their knowledge, but that *it might have been stored without their knowledge.*

Joseph Harrison, cooper, *Joseph Black*, merchant, and *William Beldon*, ship broker, stated that they knew nothing about gunpowder, and that *it could not be stored* in the apartments of which they had the key, without their knowledge.

Collingwood Taylor, merchant and commission agent, had goods stored in the warehouse, of which there were thirty-nine casks of Arsenic. (There being a rumour going that these arsenic casks really contained gunpowder, increased interest was given to Mr. Taylor's evidence.) Mr. Taylor said *it was not possible for any of the casks to contain gunpowder*, he had seen several of them opened, and all the casks were sent from one firm, Henry Conn, of Falmouth. He added that he was not cognizant of any gunpowder being upon the premises.

George Blair, waterman, who delivered the arsenic, said he had no reason to believe that the casks contained gunpowder, because gunpowder casks contain about 28 lb, while the arsenic casks weighed more than 3 cwt. The same casks filled with gunpowder would only weigh about $1\frac{1}{2}$ cwt. He *never* carried gunpowder into these warehouses.

There were a number of persons examined,—boatmen, cartmen, laborers, and others, who were charged, on mere rumoured report, with having taken gunpowder to and from the warehouse, but who, when summoned, in their evidence totally and directly denied the truth of such charges; and, inasmuch as their evidence amounted to a simple denial of unsupported statements, we deem it unnecessary to recapitulate it. But there is evidence as to gunpowder, of a scientific character, to which it may be needful briefly to refer.

Charles James, assistant to Mrs. Robson, flour dealer, Pilgrim street, said that he was about thirty or forty yards from the warehouse when the explosion took place, he was thrown down and cut in the head; had his head dressed by Dr. Brady, and afterwards went to a friend's in Grosvenor street, where I

got my face and neck washed ; when I combed my hair, there was a considerable quantity of black looking stuff, similar to powder, came from it. It was a powder, and had the smell of powder, it was a very fine powder, it was *soft at that time* as if it had been bruised down ; it had *not* the glaze of powder. I did not preserve any of it. John Cooper who was with me observed the same smell and appearance as myself.

Mr. Henry Wilson, merchant, and agent to the Globe Insurance Company, stated that he went at the request of *Mr. Molteni* to view his shop and timber yard, he being partly insured with them. Some stones were pointed out which had been projected by the explosion. There was a black powder upon the largest one. I took some of the powder, which I have preserved and now produce. I took it from the larger stone, it smelled strong of gunpowder.

The Jury examined the powder, and also *Mr. Bush* ; the Coroner said that it would be chemically examined.

CHEMICAL ANALYSIS.

The chemical analysis of this powder was performed in the presence of *Capt. Du Cane* and *Capt. Cooke*.

It was of a snuff-brown color, and when pressed and handled it had the smell of recently burnt gunpowder :—*i.e.*, there was a slightly offensive smell of sulphuretted hydrogen gas. It weighed 35 grains.

The results of the analysis of this powder show that it consists of sulphur, sulphuret of sodium, sulphate of soda, and some oxide of iron—an undissolved impurity.

Is it the residuum of the combustion of gunpowder ?

Assuredly not. The residuum of the combustion of gunpowder is sulphuret of potassium and charcoal—the sulphuret of potassium possessing the same color as sulphuret of sodium, and being, like it, convertible as sulphate by boiling.

This was proved by a parallel analysis of the residuum of burnt gunpowder, in the presence of *Capt. Du Cane* and *Capt. Cooke*.

The suspected powder contained *no* potash salt and *no* charcoal (*always found* in the residuum of gunpowder,) and it contained a large quantity of free sulphur, which is *never found* in the residuum of burnt gunpowder.

ALFRED S. TAYLOR, M.D., F.R.S.

The learned Professor, Dr Taylor, drew up a short summary of the arguments for and against the different explanations of the explosion—we introduce here the portion regarding gunpowder.

FOR GUNPOWDER.

The effects produced—suddenness and violence of explosion—apparently no other cause.

AGAINST GUNPOWDER.

1. No direct evidence of its presence.
2. No body of flame seen at the instant of explosion.
3. No traces of burning by gunpowder on the bodies of the dead—blackening of the face might be explained by the abundance of fine sooty and carbonaceous matter.
4. No traces in any part—many substances analyzed—no salts of potash found.
5. Must have occurred in the vault—the water examined—no nitrate or sulphate of potash—only sulphate of soda—salt alum.
6. None in the rock of formed sulphur remaining—analyzed and found to contain soda salts—no potash salts.
7. Stains of potassium in white lead paint of marine store blackened or browned permanently all over if gunpowder.
8. No burning or appearances of powder on clothes of policeman Scott.

Considering the very doubtful verbal testimony as to the fact of gunpowder being in the warehouse, and contrasting it with the clear demonstrative evidence of the chemical analysis, and the legitimate reasons deduced therefrom, we think the intelligent reader will not be at a loss to decide that, whatever may have been the cause of the explosion, it certainly *was not gunpowder*.

Third—Scientific Theories alleged as Causes.

We now proceed to the *third* point of the Enquiry, viz:—A statement of the Scientific theories deduced as illustrative of the cause.

The Gateshead Jury having desired the attendance of a practical chemist to guide them in their verdict, *Hugh Lee Pattinson, Esq.*, was selected as best acquainted with the nature of Nitrate of Soda.

MR. PATTINSON'S THEORY,—STEAM.

Hugh Lee Pattinson stated, that he was one of the Partners of the Felling and Washington chemical works ; they were of large extent. For the last forty years he had given his mind to chemistry. After examining the respective contents of the bond warehouse, it was his opinion that no *one* of the substances within it was explosive *per se*, that is, by itself. He was further of opinion that no *two* of these substances, by being roughly mixed together, were explosive ; nay, he might go further and say that no *three* of them were explosive. During the last two days, philosophically, he had made several experiments, not because he had any doubts as to the cause of the explosion, but to make assurance doubly sure, he had melted nitrate of soda, and when perfectly fluid and red hot, he poured into it melted brimstone, and these combined had produced certainly intense heat, but no explosion. He had also introduced nitrate of soda into melted guano, zinc, and coal tar, without any explosive results. What he observed was, what chemists call a simple deflagration, which is a gradual sparkling. It followed, that the contents of the warehouse *alone* would not explode, as they wanted another element, namely, water ; for they had abundant evidence that when water came into contact with intensely heated and melted saline matter, violent explosions took place. He had tested these things by experiments, by introducing a small quantity of water into a crucible, and also into a large jar, both containing incandescent nitrate of soda deflagrating with sulphur, and in each case the vessels were shivered to pieces, with a loud explosion.

The fire in Hillgate, the effects of which they were then considering, had burnt a considerable time before the explosion, and the evidence showed that towards the base of the building, in what was called a vault, there were 47 tons of sulphur spread out on the floor, over which was placed a tarpaulin cover, and upon the top of this cover were placed 45 tons of nitrate of soda in bags. Now, his opinion was that the sulphur in the vault took fire, which it would do at a temperature of 500 degrees or thereabouts. This would set fire to the bags

containing the nitrate, and some of the nitre would be melted, which flowing over the burning sulphur, would produce most intense combustion, and this would in a little time extend itself to all the sulphur and nitre in the vault. The large quantity of the substances deflagrating in a confined space, would necessarily generate an intense heat, more intense than probably could be well conceived; and, if at this time, water in sufficient quantity, should find its way into the vault by any means, it would come in contact with the highly incandescent salts, when steam of resistless force would be instantaneously generated, and would occasion the explosion in question. Now, to compare the force of steam with that of gunpowder, they had the following data. Mr. Robins, who experimented on gunpowder, some years ago, found that 27 grains of gunpowder yielded on explosion 34.6 inches of permanently elastic gas, at which rate, one grain of gunpowder would yield 1.28 cubic inches of gas. "We find," says the author of an article on gunpowder, in the *Edinburgh Encyclopædia*, "that 126.7 of gunpowder generates 169.6 cubic inches of gas, from which 1 grain of gunpowder would yield 1.25 cubic inches of gas. This, witness assumed, was correct. Then 253 grains of gunpowder (the weight of a cubic inch of water) would produce 316.25 cubic inches of permanent gas. One cubic inch of water expanded into steam occupies the space of 1728 cubic inches, hence the elastic force of water is to that of gunpowder as 1728 to 316.25, or as $5\frac{1}{2}$ to 1 nearly. It would, therefore, require only 3.66 hundredweight of water to do the work of 1 ton of gunpowder. Then to do the work of 8 tons of gunpowder, there would be required 29.28 hundredweight of water, or 328 gallons, or about 6 hogsheads of 54 gallons of $52\frac{1}{2}$ cubic feet of water. After much reflection, he was of opinion that, if the nitrate of soda and brimstone were burning intensely, and that $52\frac{1}{2}$ cubic feet of water fell into the place where they were burning, it would produce an explosion equal to 8 tons of gunpowder. *No gas would be engendered, but it was necessary to produce the explosion, that the water should fall into the vaults in a mass, or suddenly.*

In answer to the question, whether, according to his evidence this explosion had been caused by steam, the same as a boiler explosion,—Mr. Pattinson replied: *Yes.* That is, the water came in contact with this intensely heated fire, and an explosion was caused by the steam produced by that water; but *not in any way because of the chemical compounds whatever they might be.*

Mr. Pattinson subsequently at the Felling Chemical Works, made several experiments elucidatory and confirmatory of his theory, before the jury, who had proceeded thither to witness them.

In Mr. Pattinson's subsequent evidence, he said :—Since I gave my former evidence, I have made several other experiments of the same description, some of which I will detail. In an iron pot 14½ inches in diameter, and 12 inches deep, I placed 10lbs of nitrate of soda, 5lbs of sulphur, and 1lb of coal in powder, and, thirty seconds after the mixture was set on fire, the mass being in intense ignition, I added 2½lbs of water. No effect took place for five or ten seconds; but just as my assistants and I were approaching the pans, a most tremendous explosion took place, which was heard for miles round, and shook all the houses in the neighbourhood. The iron pan, nearly ½ inch thick, was broken into nine fragments, and its bottom forced 6 inches down into the solid earth, in which it was placed; the earth all round the pan being forced outward, so as to form the appearance of a crater. This being the more direct and palpable experiment, and our space being limited, we are obliged to omit the details of the other.

PROFESSOR TAYLOR'S THEORY,—GAS.

Alfred Swan Taylor, F.R.C., of Physicians, and Professor of Chemistry, and Medical-Jurisprudence, Guy's Hospital, London, stated in evidence, that at the desire of Viscount Palmerston he had come to Gateshead, to determine if possible, by chemical science, the cause of the explosion; by which such a destruction of life and property had been occasioned in this town. He had, in company with Capt. Ducane, Mr. Schorey, and others, visited the site of the explosion, and accurately inspected the locality; and had collected samples of the substances from various parts of the premises, including stones, timber, water, &c., with a view of determining whether there were any traces of gunpowder, or of the salts resulting from the explosion of gunpowder, and he concluded, from all his experiments, that there is *a total absence of all chemical evidence of the presence of gunpowder*; and in the entire absence, chemically speaking, of any traces of that substance or its products on the surrounding buildings, he was of opinion that the materials said to have been contained in the vault, the focus of the explosion, namely, the nitrate of soda and sulphur, might, under the circumstances, have led to the explosion and *its lamentable results*.

Assuming that there were stored upon the floor of the vault, 47 tons of sulphur covered with tarpaulin, and 45 tons of nitrate of soda in bags up to within a foot of the ceiling, and assuming further, that this mixture ignited and burnt with rapidity during the conflagration, and that the gases evolved, sulphurous acid and nitrogen, could not obtain a free escape in proportion to the rapidity with which they were produced, then it was his belief that the quantity of gases thus evolved, combined with the increased expansive force which they would acquire from the high temperature around them, and as a result of the combustion of the sulphur and nitrate, would suffice to account for the explosion and its results. He found by calculation that the quantity of sulphurous acid set free by this combustion, from about half a ton of sulphur and a quarter of a ton of nitrate of soda, amounts to 12,570 cubic feet, calculated at the ordinary temperature of the air; but as the heat of combustion is equal to the smelting point of copper, that is to say, about 2,000 degrees of Fahrenheit, the expansion of the gases will probably increase this volume to 281,000 cubic feet. If a ton of sulphur and half a ton of nitre were consumed before the explosion occurred, then the amount of gas calculated for the temperature of combustion would be equal to 562,000 cubic feet. Even this represents the combustion of only one-ninetieth part of the sulphur and nitrate of soda said to have been stored in the vault or chamber. If this enormous volume of gas could escape in proportion as it was produced, there would be no explosion; but if by accident there were any obstacle to this free escape, or if the gases were produced with extreme rapidity, by very intense combustion, then all the effects of this explosion might readily occur. Slow combustion would not have produced the effects. In the vault referred to, the dimensions are stated to have been 20 feet by 16, and 14 feet in height. This would give a capacity of 4,480 cubic feet. It seems that it was closely filled with the sulphur and nitrate of soda to within a foot of the ceiling, leaving, therefore, only about 320 cubic feet of vacant space at the top of the chamber. This space would be increased as the substances were melting or burnt; and an allowance of one-third of the whole space may, therefore, be made in reference to this calculation. This would give 1,490 feet for the gases to accumulate in. This is about 1,380th part of volume the gases would occupy. Therefore if there were no space to allow of their escape, the gases would be under a pressure of 380 atmospheres. This is equivalent to

5,700lbs. pressure on the square inch. Allowing that the pressure was reduced to 80 atmospheres by partial diffusion in the adjoining chambers, still this would represent a force of 1,200lb. pressure on the square inch, which is twelve times greater than the pressure of a locomotive boiler before explosion. On this theory of the cause of the explosion it is assumed that only one ninetieth part of the contents of the vault were actually consumed at the time of its occurrence; but if one-fifth or one-sixth of the contents of the vault had been converted into gases, which is not an improbable condition in this intense conflagration, then the relief given by the diffusion of the gases would be more than compensated; and this would fully account for the tremendous effects. The adjoining chambers are represented to have contained a large quantity of sulphur and nitrate of soda. The vaults would therefore become a complete mine of solids, rapidly converted by heat into gases, capable, by their quantity and great expansion, of shattering everything around them.

According to the evidence, the vault contained two substances only—sulphur, then a tarpaulin over it, and a large quantity of nitrate of soda, in bags. Sulphur is a very ignitable substance, and melts at 230 degrees of our temperature, and at 300 or 400 degrees it takes fire and burns with a blue flame. It is the most easily combustible body that we know, and hence its use in the formation of lucifer matches. It was the unfortunate circumstance in this case that the sulphur was at the bottom of the vault; it would immediately ignite, and there would be a mass of burning material at the bottom of the vault. Burning upwards it would meet the nitrate of soda, and produce an enormous amount of heat. Nitrate of soda is a remarkably fusible substance, and it would fall in a melted state on this intensely heated sulphur. This would produce an enormous extrication of gas. This gas would be expanded by intense heat, a heat sufficient to melt copper, resulting from the combustion of these two substances. These would, in short, set free half a million of cubic feet of gas, which must find space for itself, or if not it would blow to pieces the building in which it was confined. Further, if we consider that this gas must have been extricated in a very short space of time, it was impossible for the gas to escape through the doorway which existed in the vault. The gases which are given off will not support combustion. They *extinguish* everything in an instant. This convinces me that in *this* explosion, from the absence of flame, the sudden and

intense darkness, that there is great probability in the view I have taken. The learned Professor mentioned the different kinds of explosion which might take place:—that of gunpowder produces flame; that of water produces steam, neither of which agree with the facts of this case. The Professor continued—In consequence of nitrate of soda being placed on the top of the sulphur, it would protect the wooden roof of the building from the action of the sulphur vapour, and before this roof ignited, I believe the explosion took place.

In answer to a question, the Professor said,—I think *the explosion would be caused by the mechanical confinement of the gases*. The Town Surveyor, Mr. William Hall, pointed out the construction of the building. It was surrounded by strong walls, the lower vault having only one small aperture.—Professor Taylor then said that the position of this aperture explained the direction of the explosion, which was north and south; the weaker part of the building fronted the river, and the explosion appears to have shot over the river like a discharge from a mortar.—He also remarked that the building appears to have been stronger than he had supposed; and the destructive nature of the explosion would be in proportion to the strength of the building.

Dr. Taylor read and handed in the following paper as an addendum to his evidence:—

FOR AQUEOUS VAPOUR.

The effects—suddenness and violence of explosion.

AGAINST IT.

1. A large quantity of water, say one or two tons, must have been suddenly converted into steam to produce the effects.

2. How could this have entered the vault in such a volume at once? How could it have accumulated to explode all at once in a quantity sufficient to account for the tremendous explosion? There being no boiler or vessel to enclose it until it had reached its maximum of pressure.

3. At the moment of explosion, clouds of steam would have been visible. *The bodies near would have presented marks of scalding.*

FOR THE MIXTURE, OR GASEOUS THEORY.

1. Adequate quantity of gas produced.
2. Produced in a close chamber, nearly full of the material.
3. Sulphurous acid and nitrogen, the only gases formed.
4. By ordinary combustion, gases slowly produced.

5. By rapid combustion of a ton in a few minutes under intense heat, the volume given out and expanded would be so rapidly produced as to account for the effects.

6. No flame in explosion—all flame extinguished.

7. Smell of sulphuric acid.

We feel it due to record the objective remark of Mr. Stoker, Coroner for Newcastle, to the theory of Dr. Taylor; viz:—That “though not pretending to a very scientific knowledge of the matter, the difficulty was, *how* to account for the *instantaneous* production of such an enormous quantity of gas as would be necessary to cause this tremendous explosion. If the *gas* was generated gradually, the resistance from the vault or chamber would have been so slight that there can be no doubt the explosion would have been a very gentle one, which would have gradually forced up the ceiling of the chamber. This, in my mind, said the Coroner, is the difficulty with respect to Professor Taylor's Theory.” We add, that this objection appears to be in part, if not fully, anticipated by the reasons given in No. 5, by Dr. Taylor, and by his closing remarks respecting the *strength* of the building.

VERDICTS OF THE JURIES.

GATESHEAD.

The jury were absent two hours and a half; and, on their return, the Foreman delivered their verdict; which (after a verbal alteration or two suggested by the Coroner) stood thus:—

“We are of opinion that the deaths of Thomas Scott and others were occasioned by the accidental explosion of a quantity of nitrate of soda and sulphur contained in a warehouse in Hillgate commonly known as Bertram's warehouse. The immediate cause of the explosion was a fire (the origin of which, owing to conflicting evidence, we have not been able to discover, although there would appear to have been a want of caution displayed,) which broke out in the adjacent worsted mill belonging to Messrs. Wilson, and communicated to the warehouse alluded to; but in what way the two substances,

nitrate of soda and sulphur, which in our opinion caused the explosion, acted or reacted, chemically or mechanically, we are unable to decide. At the same time, we think it our duty earnestly to recommend the proper authorities to prevent, by every means in their power, such substances as sulphur and any nitrates, which, under certain conditions, we consider to be of the most dangerous and destructive character, from being stored or deposited near to each other. We are fully satisfied that there is a complete want of evidence of the presence of gunpowder in the warehouse which exploded.

“JOHN SOWERBY, Foreman.”

NEWCASTLE.

The jury retired to consider their verdict ; they were absent about half an hour, when they returned with the following—

“We find that the deceased Mary Kerrs and others died from the effects of an explosion, which took place on Friday morning, October 6th, in Bertram’s warehouse, situated in Hillgate, Gateshead. That this explosion resulted from a fire which originated in Wilson’s woollen manufactory ; but we have no direct evidence as to the immediate cause of the explosion, or of the origin of the fire.”

“EBENEZER ROBSON, Foreman.”

GENERAL REMARKS.

Having thus placed the Evidence of this Enquiry in as clear and perspicuous a light as we have been able, we are not disposed to intrude further remark ; except the brief observations that, the origin of the fire appears plainly unascertainable,—and that the evidence against their being Gunpowder in the warehouse is so clearly demonstrative as to banish all doubt from the minds of the intelligent. As to the Theories educed by the scientific gentlemen, we do not presume to pronounce an opinion upon their correctness ; we judge, that under given conditions, either one cause or other was equal to the effects ; but, how far these conditions are defined by the evidence, we must leave to superior judgments to determine. We have done what we could to place the chief points of the evidence fully and fairly before our readers, and each one must decide for himself.

We would impress the recommendation of the Gateshead Jury, respecting the storing of such quantities of combustible and explosive substances in our large towns. If, as may be gathered from the paragraph of the Gateshead Observer, the brimstone trade is so largely on the increase, other Bonds and Warehouses, in these and other towns, may be pregnant with such like disastrous effects as has been, in this instance, so bitterly experienced.

PROJECTED IMPROVEMENTS.

In conclusion, we would observe, that it is the prerogative of an enlightened intelligence to bring good out of evil; and we may prospectively realize the advantages to the general community of both towns, in the facilities to trade and commerce,—in the social benefits and sanitary arrangements necessarily involved in the projected improvements, consequent on the clearances of these great fires. When we contemplate the noble and extended Quay on the Gateshead side of the river, running parallel with the Quay on the north, and, independent of its business facilities, the spacious promenade it would afford, and the recreation and health to be enjoyed; and in Newcastle, the improvement of the Quay, the Merchants' Exchange, the projected new streets, giving increased accommodation and openings of intercourse with the higher parts of the town, and thus administering to the benefit of the general public, we feel justified in recording the sentiment, that the evils of this vast calamity will be over-ruled and work out an incalculable amount of enduring future good,—though we may now have to mourn the painful cost, and meditatively say, "the ways of providence are inscrutable and past finding out."

J. R.



JK

